NVR series

NVR-16
NVR-16D1
NVR-32
NVR-32H

User Manual

July 2010

FCC NOTICE (Class A)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Federal Communications Commission Statement

NOTE- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:
Warning —This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Community Compliance Statement (Class A)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

Warning - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

DISCLAIMER

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The mark of Crossed-out wheeled bin indicates that this product must not be disposed of with your other household waste. Instead, you need to dispose of the waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about where to drop off your waste equipment for recycling, please contact your household waste disposal service or the shop where you purchased the product.

WARNING

- TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
- GUARANTEE BECOMES VOID IN CASE OF ANY UNAUTHORIZED MODIFICATIONS INTO DOM CONTENTS.
- DO NOT REMOVE REMOVABLE HDD TRAY SHILE SYSTEM IN USE. IT WOULD DAMAGE DOM CONTENTS.
- DVR SUPPORTS 1024 x 768 OR 1280 x 1024 DISPLAY RESOULTIONS. OTHER DISPLAY RESOULTUIONS WOULD CASUE ABNORMAL DVR FUNCTIONS.
- DO NOT INSTALL DVR IN THE AIRTIGHT ENVIROEMENT. IT WOULD CAUSE INSTABILITY OF THE SYSTEM.

CAUTION

IF THERE IS ANY DAMAGE, SHORTAGE OR INAPPROPRIATE ITEM IN THE PACKAGE, PLEASE CONTACT WITH YOUR LOCAL DEALER. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.

Manual Conventions

The following conventions are used throughout this manual

Caution symbol is intended to alert the user of the important installation and operating instructions. Fail to comply may damage the system.

Information symbol is intended to provide additional information for the purpose of clarification.

TABLE OF CONTENTS

Chapter 1 Introduction 1

1.1 Package Contents 1

1.2 Features 1

1.3 Hardware Introduction 3

1.3.1 Front Panel of the NVR RACK 3

1.3.2 Back Panel of NVR Rack 3

(NOTE: Not all items are included on all models. IN/OUTPUT placement may vary slot to slot between models!) 3

1.4 Connecting Devices 4

1.5 Sensor/Relay device pinhole allocation 4

1.6 Formatting Hard Disk 5

Chapter 2 Using the DVR Software 7

2.1 Running the Unit for the First Time 7

2.2 Function buttons in Advanced/Preview Mode 7

(13) iPOSLive Images 11

2.2.1 Using Event Log Viewer 12

2.2.1.1 Using POSViewer 13

2.2.1.2 Using Counting Log Viewer 14

2.2.1.3 Using the Object Viewer 15

2.3 Function Buttons in Playback Mode 16

2.3.1 To Cut and Save the Wanted Portion of the Recorded Video 19

2.3.2 To Bookmark a Section of the Video 20

2.3.3 To Search Using the Visual Search 21

2.3.4 To Search Using the Event Search 21

2.3.5 To Search Using the Intelligent Search 22

2.3.6 Watermark Verification 22

2.4 Function Buttons in Compact Mode 23

2.5 Function Buttons in PTZ Camera Controller 24

2.6 Setting Up and Using the EMAP 25

2.6.1 To Set Up the EMAP 25

2.6.2 To Use the EMAP 26

2.7 To Setup the PTZ/IP PTZ Camera 27

2.7.1 Setup the PTZ Camera 27

2.7.2 Setup the IP PTZ Camera 29

Chapter 3 Customizing the DVR System 31

3.1 System Setting 31

3.1.1 To Set the POS Setting 44

3.1.1.1 General Setting 44

3.1.1.2 Advanced Setting 49

3.1.1.3 POS Database Setting 49

3.1.2 UPS Connection 50

3.2 Camera Setting 52

3.2.1 Setup the Object Counting 58
3.2.2 To Setup the FaceFinder 60
3.2.3 Setup PTZ Tracking 62
3.2.4 Create a Camera Group 64
3.3 Recording Setting 66
3.3.1 To Mask/Shield an area on the screen 71
3.3.2 To show and change the color of the Mask 71
3.3.3 To Playback Encrypted Video 71
3.4 Network Setting 72
3.5 Schedule Setting 75
3.5.1 Set schedule at specific portion of time 76
3.6 Backup Setting 77
3.6.1 To Backup file 77
3.6.2 Setup Quick Backup 78
3.7 Sensor Setting 79
3.7.1 To Setup External I/O Box 80
3.8 Relay Setting 81
3.9 Alarm Setting 82
3.9.1 To Setup Alarm Relay: 88
3.9.2 To Setup the Alarm Sound Setting: 88
3.9.3 To Setup Call Out List: 89
3.9.4 To Setup Send E-mail Setting: 90
3.9.5 To Setup FTP Setting: 91
3.9.6 To Setup Alarm Recording Setting: 91
3.9.7 To Setup SMS/MMS Setting: 92
3.9.8 To Setup PTZ Preset Point: 93
3.9.9 To Setup Alarm SOP: 93
3.9.10 To Setup CMS Setting 93
3.9.11 To Setup POS Keyword Setting 94
3.9.12 Missing, Suspicious Object, and Scene Change Detected 95
3.10 User Setting 97
Chapter 4 Backup Video Players 99
4.1 Familiarizing QPlayer Buttons 99
4.1.1 Watermark Verification 101
Chapter 5 Using Functional Keys 102
Chapter 6 Using the Remote Programs 103
6.1 Familiarizing the WebViewer Buttons 104
6.1.1 To Setup Remote System Setting 106
6.1.1.1 Basic Setting 106
6.1.1.2 Advance Setting 108
6.2 Familiarizing the WebViewer PTZ Buttons 122
6.3 Familiarizing the Remote Console Buttons 123
6.3.1 To Setup Remote Console Setting 124
6.3.2 Familiarizing the Buttons in PTZ Camera Controller 125

6.4 Using the Remote Playback 126
6.4.1 Familiarizing the Local Playback Buttons 127
6.4.2 Familiarizing the RealTime Playback Buttons 129
6.4.3 Familiarizing the Download and Playback Buttons 131
6.5 Using HandyViewer to Access DVR server 133
6.6 Using PDAViewer to Access DVR Server 133
6.6.1 To install PDAViewer from the Internet 133
6.6.2 To Use the PDAViewer 134
6.6.3 To Playback in PDAViewer 135
6.6.4 Using JavaViewer to Access DVR Server 136
6.6.5 To Use the JAVA-Viewer 137
Chapter 7 Image Verification 138
7.1 To Run the ImageVerification program 138
Chapter 8 iEnhance 139
8.1 To Use iStable 140
Chapter 9 Web Tools 142
9.1 Dispatch Server 142
9.2 Remote Setup 143
9.2.1 To Add DVR server 143
9.2.2 To Setup Remote DVR Server 144
9.2.2.1 System Setting 144
9.2.2.2 Camera Setting 147
9.2.2.3 Record Setting 148
9.2.2.4 Network Setting 149
9.2.2.5 Schedule Setting 152
9.2.2.6 Alarm Setting 153
9.3 Remote Backup 158
Chapter 10 Using the Remote Control Server 160
Appendix A Network Service Port 161
Appendix B Install Extra Hard Disk (RACK series) 162

Chapter 1 Introduction

1.1 Package Contents

Recorder Package

(1)

(2)

(3)

(4)

(5)

- ☐ (1) Recorder RACK unit
- ☐ (2) 2 x AV cable
- ☐ (3) Utility Software CD (Manual included)
- ☐ (4) Power Cord
- ☐ (5) USB optical mouse

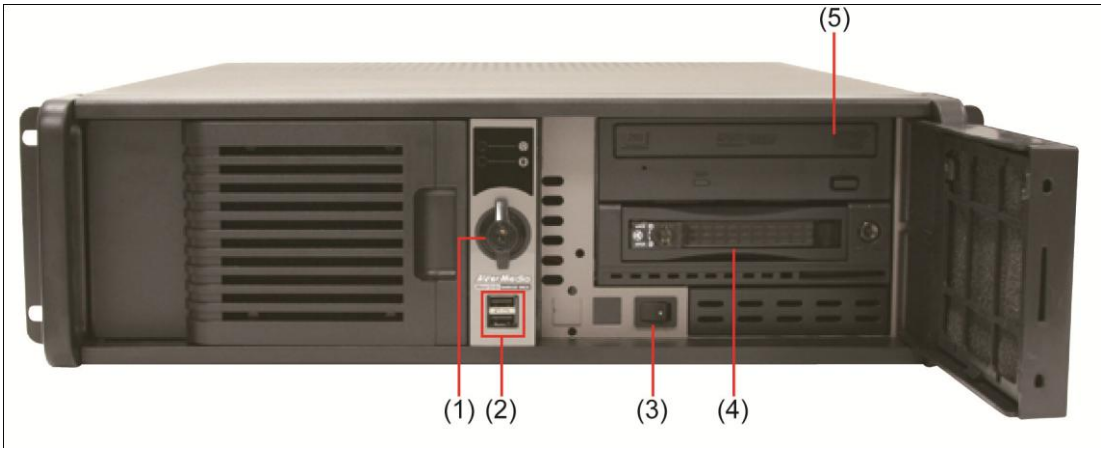
1.2 Features

Recording Modes	Continuous Recording / Smart Recording / Motion Recording / Audio Recording / Alarm Recording / Manual Recording
	ⓘ All modes can be triggered by schedule
De-interlace Options	Optimize for dynamic or static camera scenes
Motion Detection	Detecting any kind of movements within the camera focus
Privacy Protection	Editable shield preventing private areas from monitoring and recording
EMAP Function	Show the positions of cameras, sensors, relays and triggered status
Attention Please	Enable dialogs to trace if operator pays attention to security monitor
Powerful Search	By date, time, camera, area, event, vision, and log file
Bookmark	Easily save links to particular locations of recorded data and play them directly from the saved links
POS Integration	Compatible with most commonly used POS system Easy to add POS protocol Confidential Word Filter Change location of POS text on camera display image
Advanced Event Log Viewer	Details complete event logs according to your selection on event, operation, POS, system and network events.
Alarm Triggered Mode	Single event or multiple events as alarm trigger conditions
Smart Alert Functions	Launch EMAP / Cam display / Warning sound / Email / Make a phone call / Send files to FTP / SMS and MMS / PTZ preset point tracking / Alarm SOP wizard / Start recording / Enlarge camera view

Remote Access	Webcam via regular IE browser Remote Console NVR-CMS Central Management System
Web Cam / Remote Manager	Multiple DVR and IP cameras on your IE browser Record 16 cameras on remote side
Dispatch Server	Share transmission loading; enable more clients at remote access & high-speed data transmission.
PDAViewer	4-cam view, full screen and live audio
DDNS	Allow remote clients to search dynamic servers without enquiring for server's IP address
iStable	Fix shaking and jolts impact on video with just one click
iEnhance	Enhance video quality such as Brightness, Contrast, Hue, Saturation, Sharpness, Noise Reduction, De-interlace and Gray Scale of recorded data

1.3 Hardware Introduction

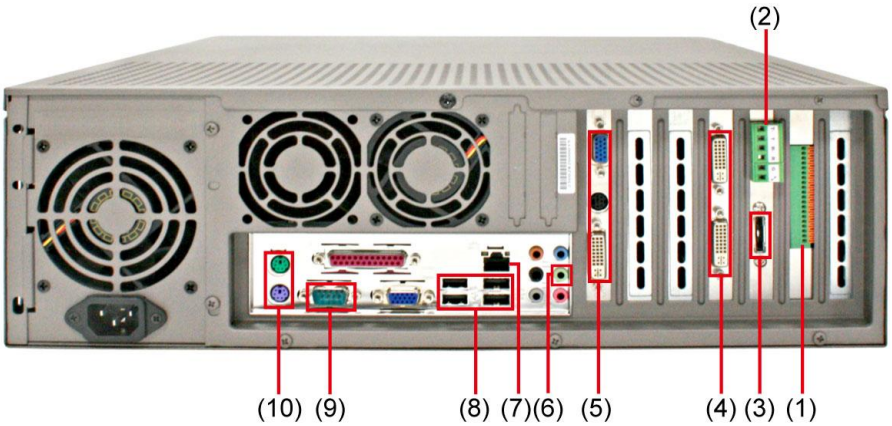
1.3.1 Front Panel of the NVR RACK



Name	Function
(1) Locker	To lock the front cover
(2) USB port x 2	To connect external USB devices
(3) Power switch	To on/off the system unit
(4) Removable HDD drawer	It can be installed the SATA hard disk
(5) DVD-RW	To backup recorded file on DVD-R/RW disk

1.3.2 Back Panel of NVR Rack

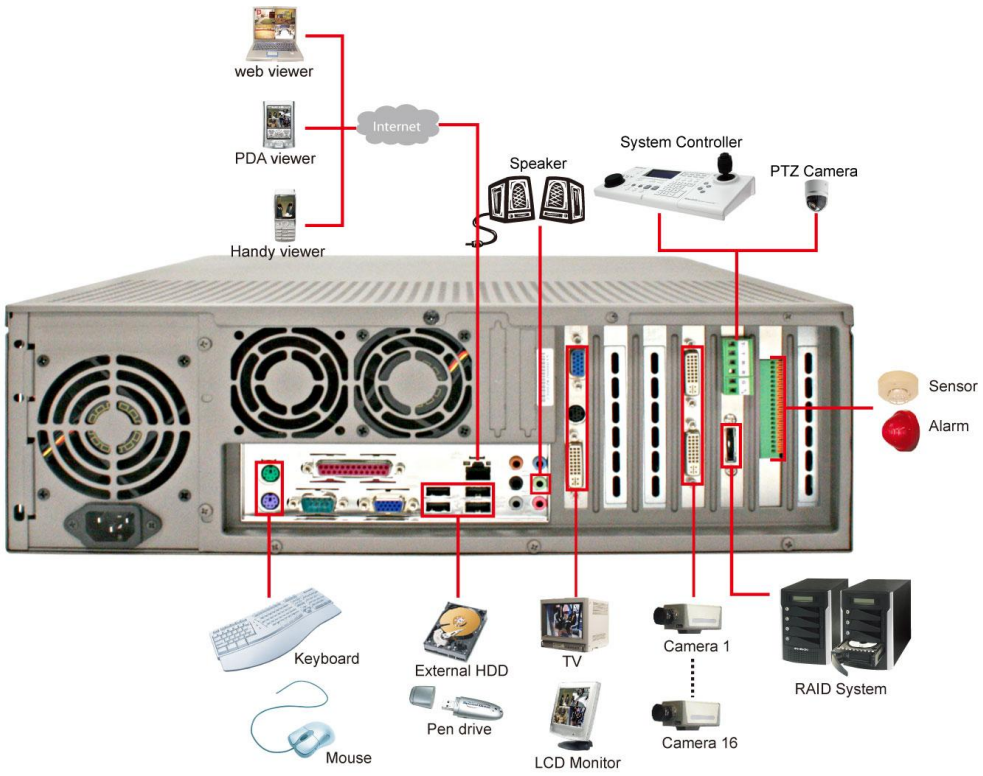
(NOTE: Not all items are included on all models. IN/OUTPUT placement may vary slot to slot between models!)



(1)	Sensor and Relay connection interface	(2)	RS485 interface
(3)	eSATA interface	(4)	AV Input
(5)	VGA Output	(6)	Audio output
(7)	Ethernet port	(8)	USB port x 4
(9)	COM port	(10)	Mouse & Keyboard Input

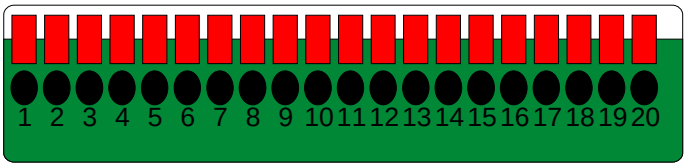
RS-485 interface doesn't support to connect with RS-485 interface of E-I/O box device directly.

1.4 Connecting Devices



1.5 Sensor/Relay device pinhole allocation

The I/O card enables you to connect (4) sensor inputs and (4) relay outputs. Just connect the external sensor and relay pin directly to the I/O card pinhole. Check the table below and locate which pinhole is assigned to sensor input and relay output.



The signal from the sensor (i.e., infrared sensors, smoke detectors, proximity sensors, door sensors, etc.) is being transmitted to the I/O card and this triggers the system to respond and send signal to relay device (i.e., alarm, telephone etc).

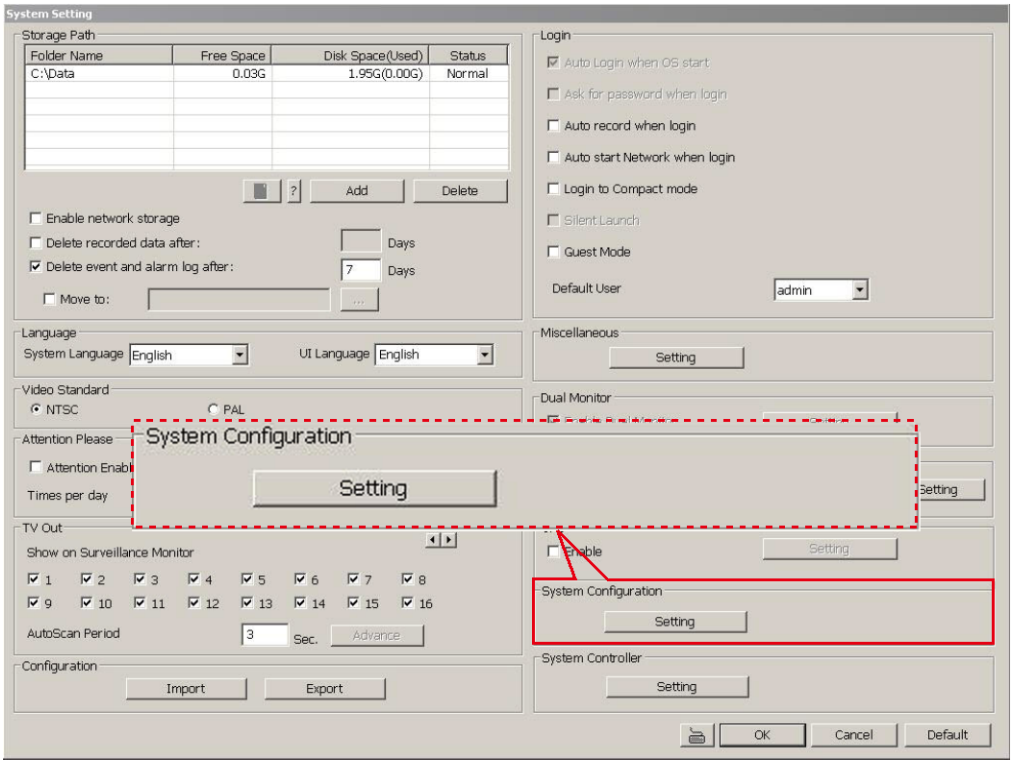
Pin #	Definition	Pin #	Definition
1	Sensor input signal 1+	11	Relay Normal Close 1
2	Sensor output signal 1-(GND)	12	Relay Common 2
3	Sensor input signal 2+	13	Relay Normal Open 2
4	Sensor output signal 2-(GND)	14	Relay Normal Close 2
5	Sensor input signal 3+	15	Relay Common 3
6	Sensor output signal 3-(GND)	16	Relay Normal Open 3
7	Sensor input signal 4+	17	Relay Normal Close 3
8	Sensor output signal 4-(GND)	18	Relay Common 4
9	Relay Common 1	19	Relay Normal Open 4
10	Relay Normal Open 1	20	Relay Normal Close 4

1.6 Formatting Hard Disk

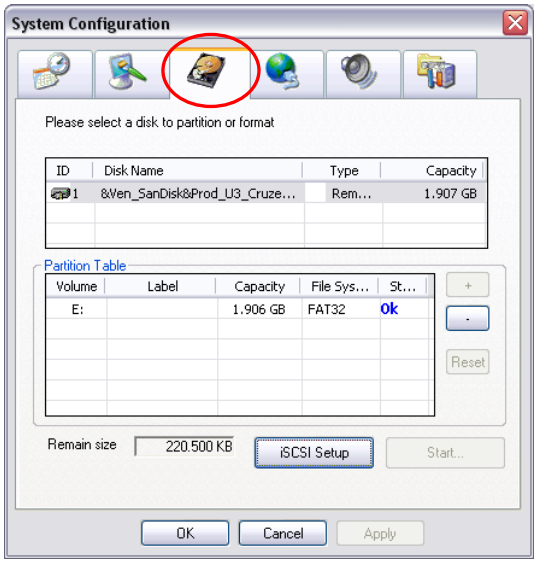
User can format un-formatted hard disk by **Disk management** function. The hard disk must format in order to record the video data. Follow the below steps to format and partition the hard disk.

- Stop recording before formatting or partitioning hard disk.
- The 1st install hard disk is not able to re-format and partition unless it is un-format when install into DVR server.
- The hard disk has been added into storage path or formatted that is not able to re-format and partition.
- **Do Not** save any recording data on **DOM**.

1. Turn on the power of DVR server after hard disk has installed.
2. Click **Setup** and enter ID and password for authentication.
3. Click **System** → **System Configuration** and click **Setting**.

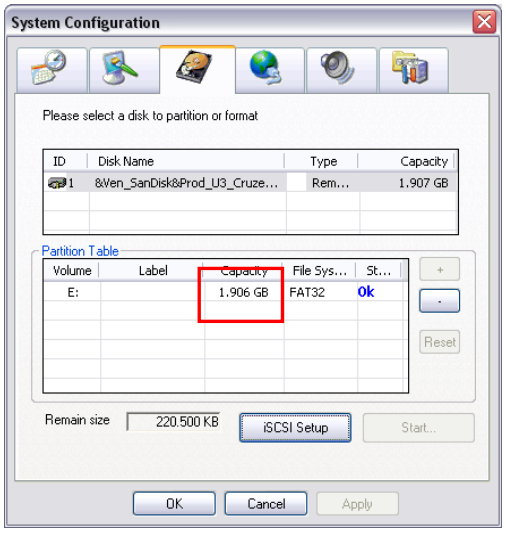


4. Select **Disk Management** tab.

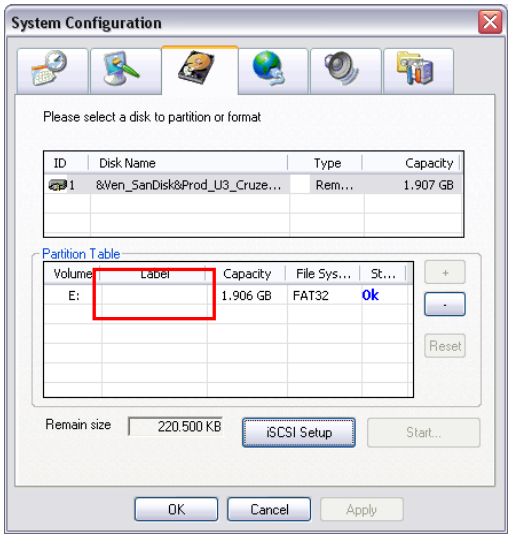


5. User should see the installed hard disk is listed. Click on the hard disk that wants to format or partition.

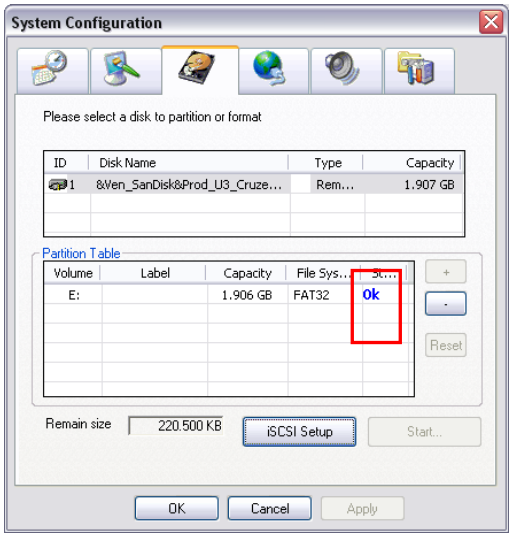
6. Click **+** button to add the selected hard disk into **Partition Table** section.



7. User can adjust the capacity of partition by clicking **Capacity** column and enter the capacity. If user doesn't want to divide hard disk into several partitions, and then, just leave the capacity without change.
8. The partition can be named by clicking on **Label** column and enter the name.



9. To create more than one partition, do the steps 7 and 8 again.
10. When all the partition has been added, click **Start** to format all partitions.
11. When the formatting complete, the each partition status will change to **OK**.
12. Click **OK** to exit when formatting is completed.

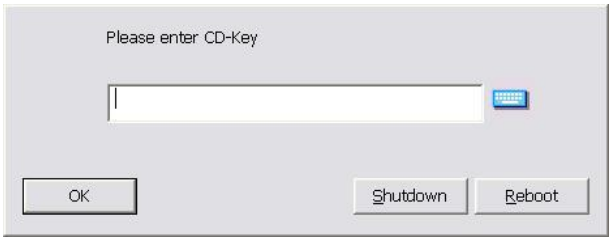


13. Now, user can assign formatted hard disk or partition as a storage path (see also Chapter 4.1 System setting).

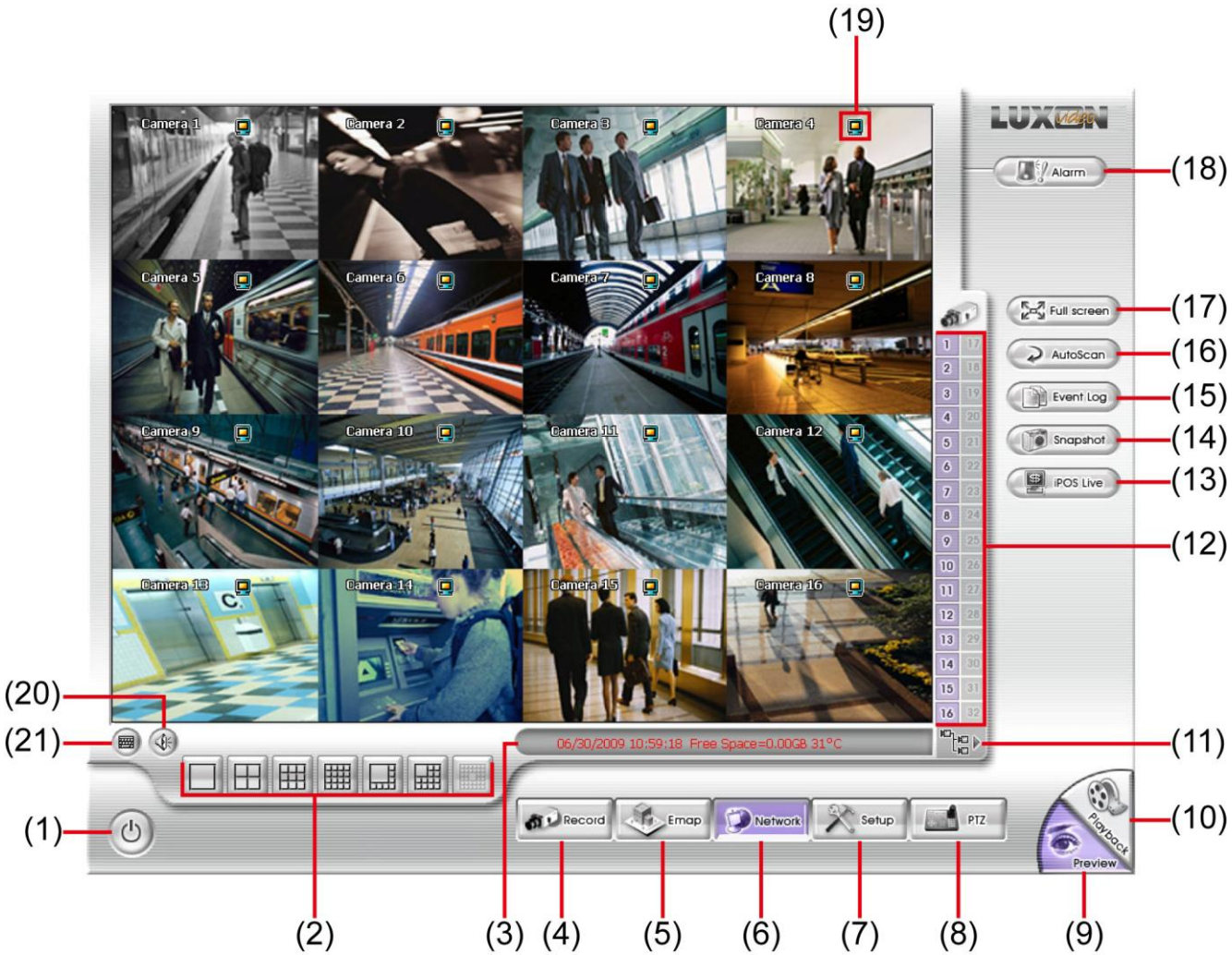
Chapter 2 Using the DVR Software

2.1 Running the Unit for the First Time

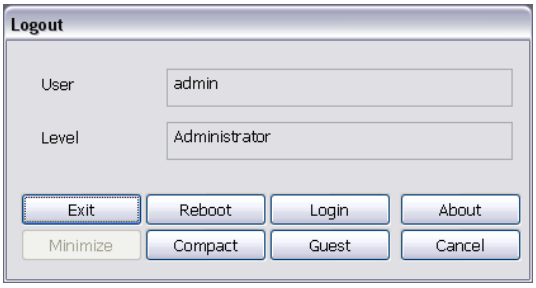
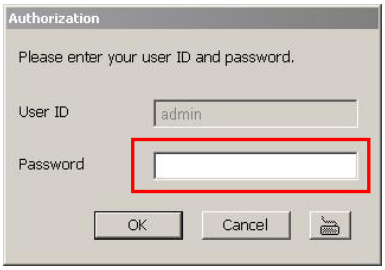
When the unit is turned on for the first time, the system will prompt you to enter the CD-Key. The CD Key is a located on **REAR PANEL** of the unit. If user wants to power off the DVR system, click **Shutdown** button. To restart the DVR system, click **Reboot** button.

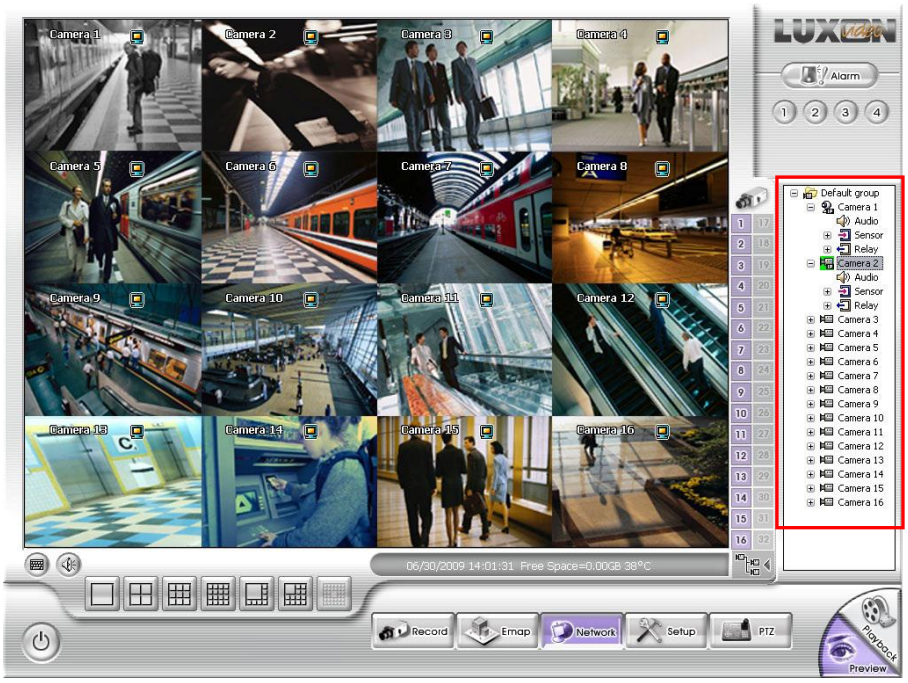


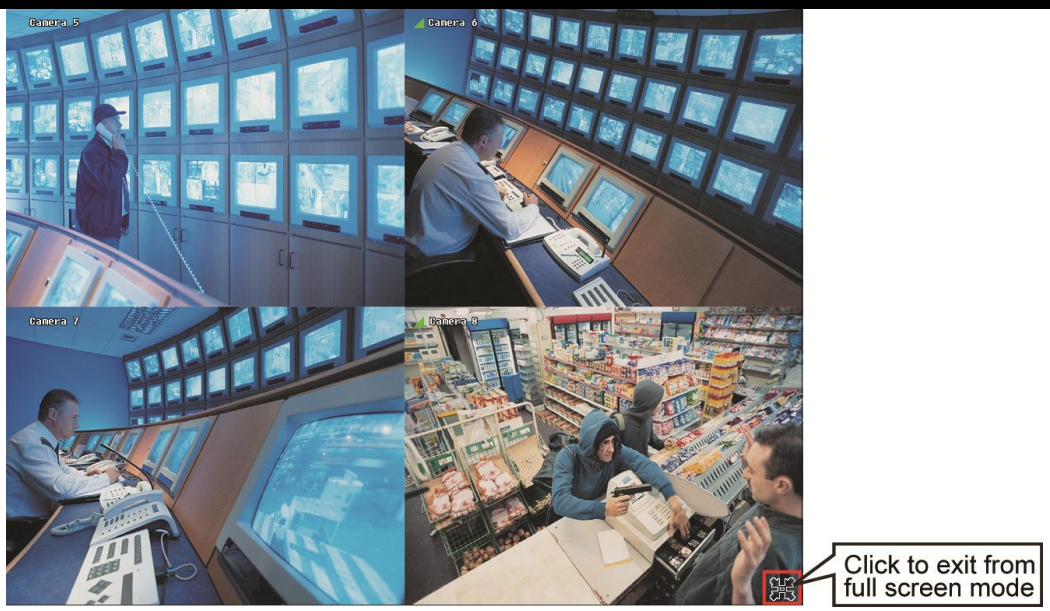
2.2 Function buttons in Advanced/Preview Mode



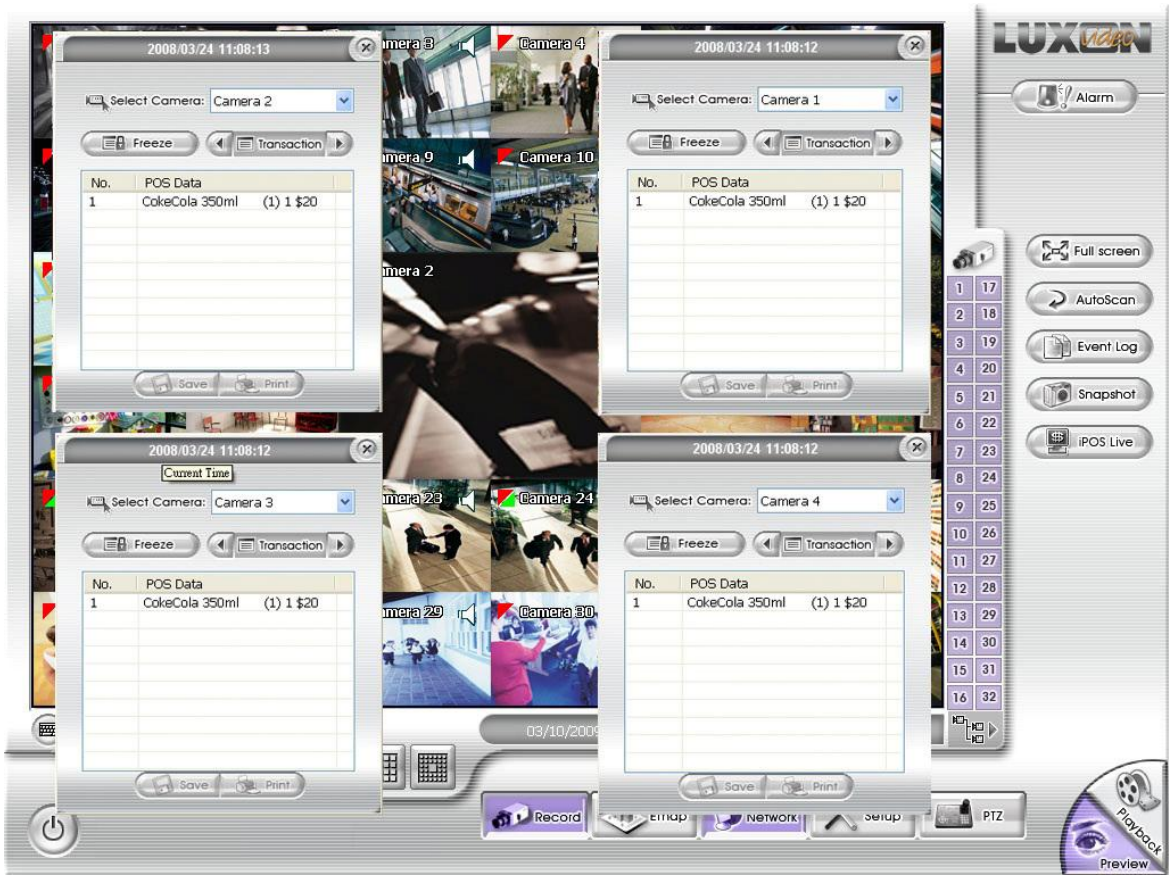
Name	Function

Name	Function
(1) Exit	Call up the Logout dialog box. In the logout dialog box, you may do the following:  - **Exit:** To shutdown the DVR program. - **Reboot:** Restart the DVR system.
(1) Exit	- **Login:** To sign-in in different account. Default user ID is **admin** and password is **admin**. - **Compact:** To switch to compact mode - **Guest:** To switch to the guest mode. In guest mode, user only can control DVR by using the remote control (see also Chapter 2.1.3.1) and the control panel of DVR (see also Chapter 1.4.4). The functions are limited to preview and playback function only. For complete functions of DVR, please login as an administrator. - **Cancel:** To exit Logout dialog box - **About:** To update patch or find about the software info.
(2) Split Screen Mode	It provides 7 kinds of split display modes for your selection. You can select one of the split display modes by clicking the following icon.
	- If there are only 4 cameras, you won't be able to switch to 9, 16, 13, and 32 split screen mode. - The DVR system will save the current operating mode (split screen mode, auto scan, full screen, and compact mode status) when shutdown DVR application and apply the mode for next login. - When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge. - When you are in multiple-screen mode, **Right click** the video screen of the camera and **Drag** on where you want to relocate it. To only display one of the video in the multiple-screen mode, **Left click** on the video screen you only want to display.
(3) Status Bar	It shows the current time, system temperature, and the hard disk's free space.
(4) Record	To start recording. The button turns violet when it is recording. Click it again and enter the password to stop.
(5) E-Map	To load up to 8 desired E-Maps in BMP or JPG image format, and locate cameras, sensors, and relays to desired positions (see also Chapter 3.6).
(6) Network	To allow inbound connections. When this function is enabled, the button turns violet. Click it again to disable all inbound connections.
(7) Setup	When setting up the system for the first time, type the word "**admin**" in the Password text box to access.  Click button to configure settings for cameras, recording, network, scheduler, backup, sensors, relays, alarms and user authentication.
(8) PTZ	To call out a PTZ setup dialog to configure an appointed PTZ camera (see also Chapter 3.5).
(9) Preview	Switch to Preview/Advanced mode. This allows you to view live camera display. Press **ctrl + F** can freeze the live preview video screen. And then, click **Snapshot** can save the freeze video screen.

Name	Function
(10) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see Chapter 3.3)
(11) Camera Group Tree	To view the user defined channel group tree (see also Chapter 4.2.3). Click **+** of group to extend group and drag the camera to surveillance screen to view. Click **+** of camera to view the camera information. 
(12) Camera ID	Click a desired icon to play the desired channel. After you click the icon, it turns yellow. If you assign a split display mode and appoint a camera number, the icon group of the cameras will turn yellow altogether.
(13) iPOSLive	To view the real time iPOS data of channels. Click the iPOSLive to call out the real time iPOS data windows. User can move the each channel of iPOS windows apart to proper position. If user didn't enable the multi-channel of iPOSLive(see aslo iPOS Pro Setting in System Setting), and then, user should only can view one channel each time. To switch to different channel, click **Select Camera** drop down list to select the channel. To tempore stop iPOS data coming, click **Freeze**. To un-freeze, click **Transcation** **See images after (21)**
(14) Snapshot	Catch a static recording image and save it as a BMP or a JPG file.
(15) Event log	Click it to pop-up the Event Log Viewer dialog to check Event, Operation, POS (Point of Sales), System and Network logs. You can select a desired date and a log item to show all logs data in the table.
(16) AutoScan	Click it to start Auto Scan.
(17) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon.

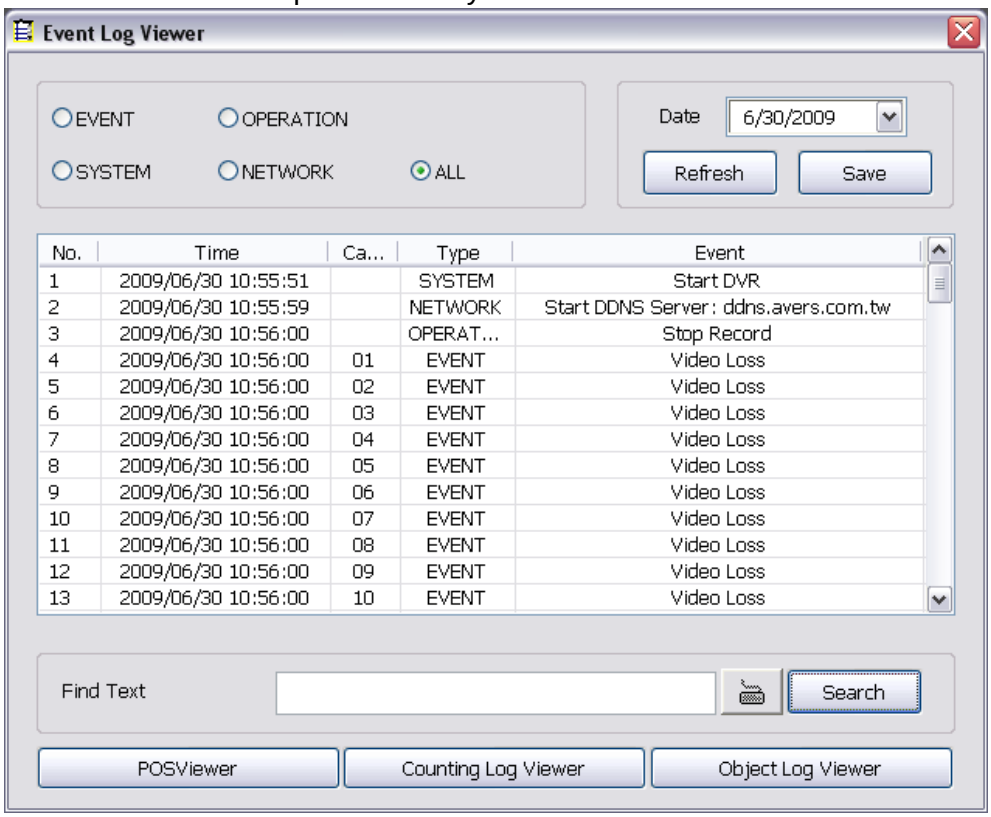
Name	Function
	 When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.
(18) Alarm	Click to view the status or advanced alarm information.
(19) Live Playback button	Click to playback the recorded file instantly in preview mode. When the channel is in live playback mode, the icon is . Move the mouse to the bottom of the live playback channel, the playback tool bar ( ) will show up. Using the playback tool bar to control the playback. Total 4 channels can be live playback at the same time.
(20) Volume	Adjust the audio volume to a proper volume.
(21) On Screen Keyboard	If the keyboard is not available, you may use the Virtual Keyboard.

(13) iPOSLive Images



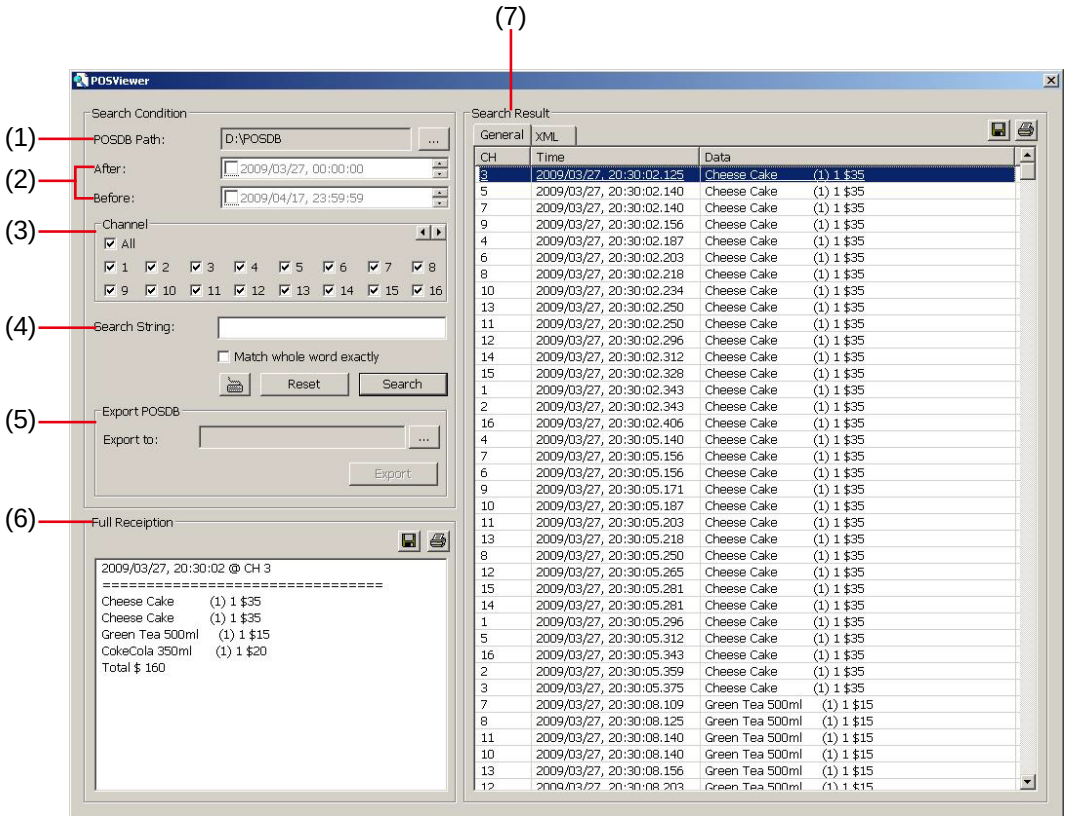
2.2.1 Using Event Log Viewer

Show the record of activities that take place in the system.


Event Log Viewer
EVENT
OPERATION
SYSTEM
NETWORK
ALL
Date
6/30/2009
Refresh
Save
No. Time Ca... Type Event
1 2009/06/30 10:55:51 SYSTEM Start DVR
2 2009/06/30 10:55:59 NETWORK Start DDNS Server: ddns.avers.com.tw
3 2009/06/30 10:56:00 OPERAT... Stop Record
4 2009/06/30 10:56:00 01 EVENT Video Loss
5 2009/06/30 10:56:00 02 EVENT Video Loss
6 2009/06/30 10:56:00 03 EVENT Video Loss
7 2009/06/30 10:56:00 04 EVENT Video Loss
8 2009/06/30 10:56:00 05 EVENT Video Loss
9 2009/06/30 10:56:00 06 EVENT Video Loss
10 2009/06/30 10:56:00 07 EVENT Video Loss
11 2009/06/30 10:56:00 08 EVENT Video Loss
12 2009/06/30 10:56:00 09 EVENT Video Loss
13 2009/06/30 10:56:00 10 EVENT Video Loss
Find Text
Search
POSViewer
Counting Log Viewer
Object Log Viewer

1. Click the Event Log button on DVR system main interface. The Event log viewer window will show up.
2. Select the Date to view or search certain event log by key word. Enter the key word in **Find Text** column and click **Search** button.
3. To filter the records, select and click the select button to display Event, System, Operation, Network or All.
4. The event list which display on the screen can be saved as text file format. To save the event list, click **Save** button.
5. To view POS event log, click POSViewer bar to call out the POSViewer window (see also Chapter .2.1.1).
6. Click Counting Log Viewer to view object counting information (see also Chapter 3.2.1.2).
7. To view FaceFinder log, click Object Log Viewer (see also Chapter 3.2.1.3).

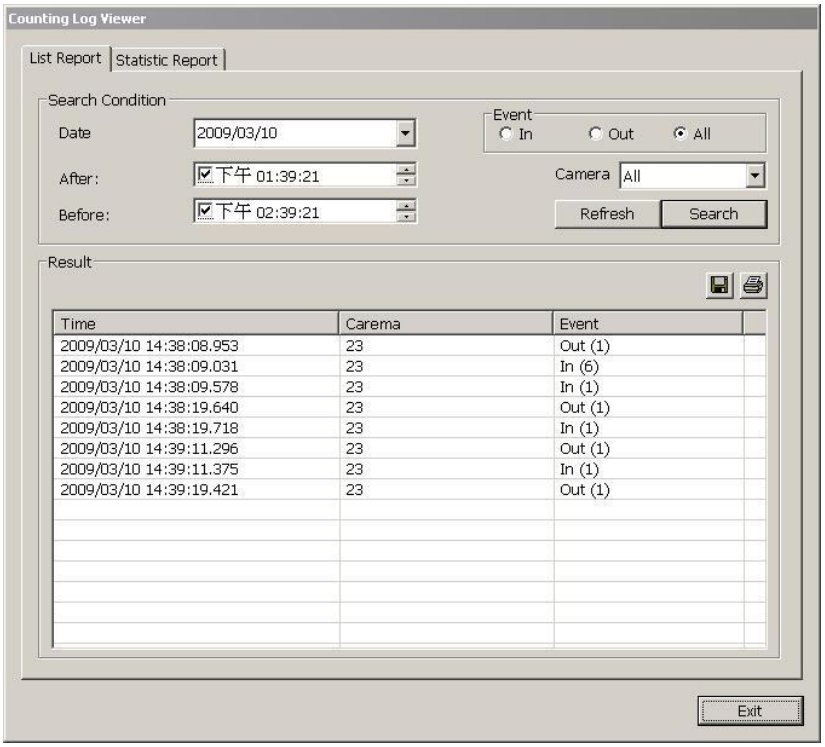
2.2.1.1 Using POSViewer



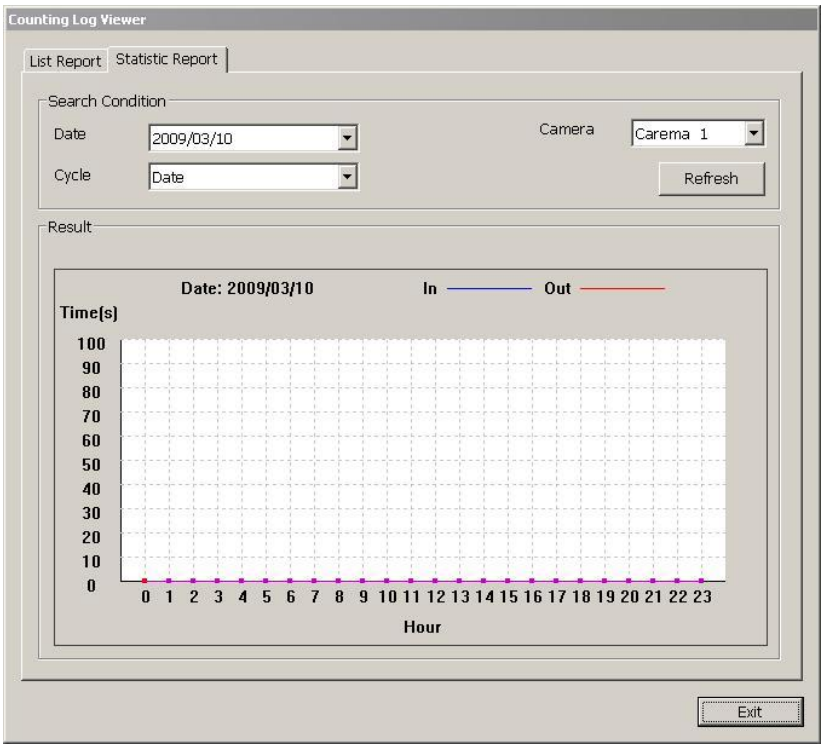
Name	Function
(1) POSDB Path	The storage path for POS event log. Click ... to change the storage path.
(2) Before/After	Set a time period before and after of POS event log.
(3) Channel	Select the POS event log of channel
(4) Search String	Enter specific key word or word string to search the POS event log. Mark the "**Match whole word exactly**" box if wants to find exactly key word or word string of POS event log.
(5)Export POSDB	It allows user to save the POS database to selected storage path in excel format. Click ... to change the storage path. Click **Export** to save the POSDB to selected storage path.
(6) Full Reception	Display the POS event log detail that user selected from Search Result window. Click to save the POS event log. Click to print out the POS event log.
(7) Search Result	Display the POS event log of search result. Click to save the search result. Click to print out the search result.

2.2.1.2 Using Counting Log Viewer

Search and view the list and statistic report of object counting. If the object counting function is not enabling, there will be no any data to view.

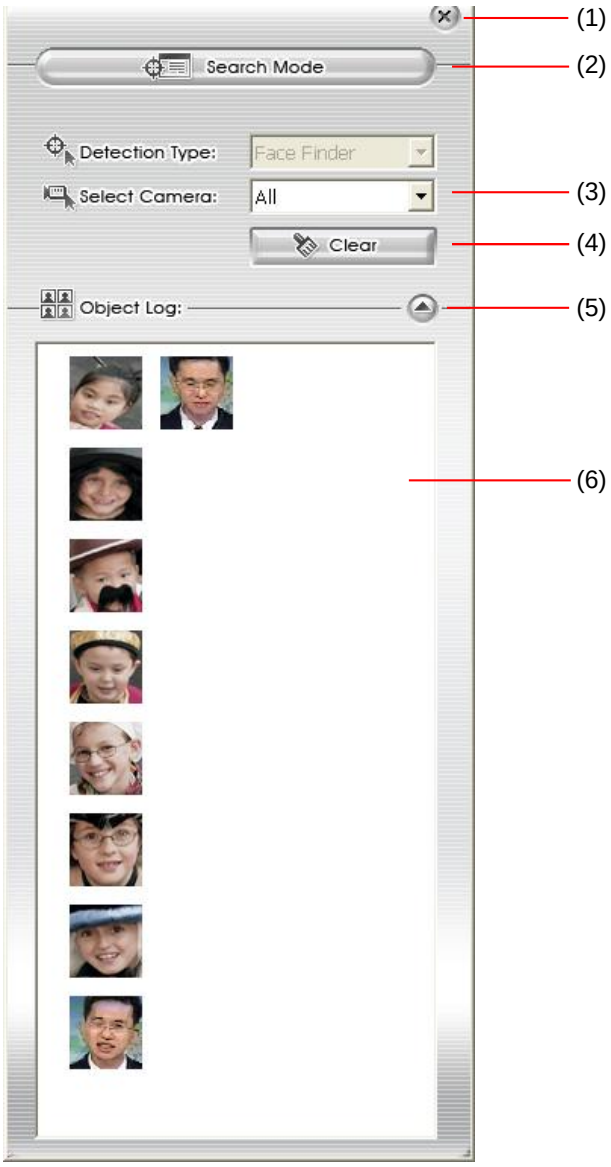


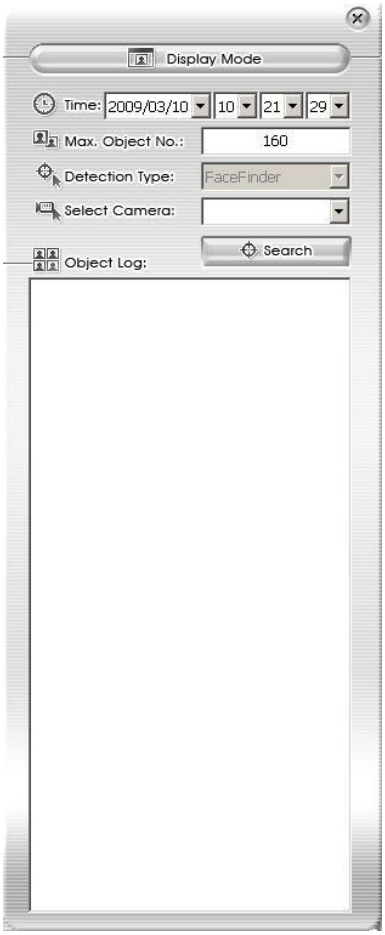
1. Select the **Date** and set a time period between **After** and **Before** for object counts searching.
2. Select the search **Event** – **In**, **Out** or **All**.
3. Select one **Camera** or **All** cameras to search.
4. Click **Search** to start searching.
5. The result will be list out in **Result** table.
6. To save the search result, click .
7. Click to print out the object counts log list.
8. To view the analysis of object counts, click **Statistic Report** tab.
9. User can select the **Date**, **Camera**, and **Cycle** to view the report of object counts (In/Out).



2.2.1.3 Using the Object Viewer

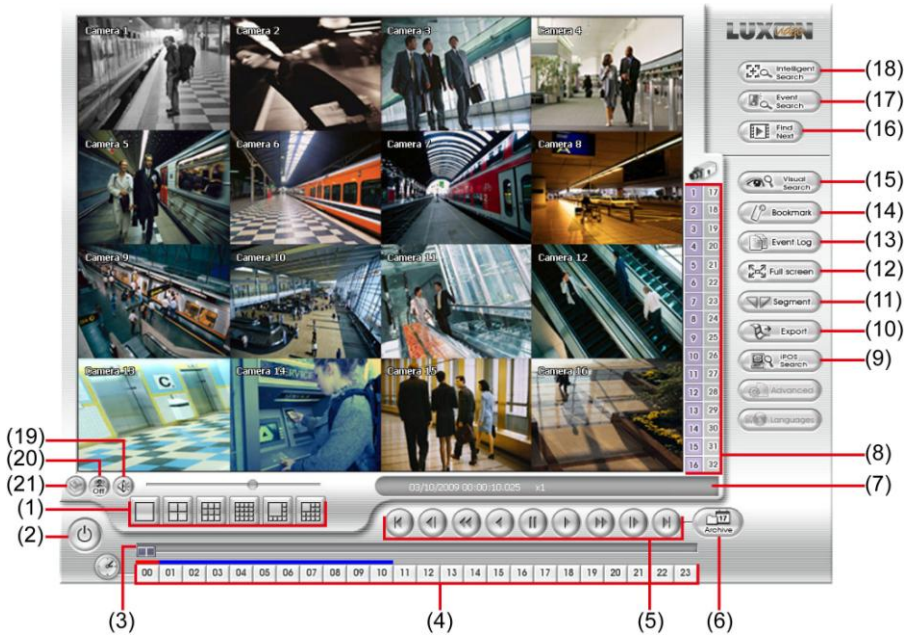
Click Object Viewer bar to view and search FaceFinder event log.



Name	Function
(1) Close	Click to close Object Log Viewer windows
(2) Search Mode	Switch to face object log search mode. In search mode UI, select the **Time** and **Camera** to search the object. 
(3) Select Camera	Select the camera to view or select all to view all cameras
(4) Clear	To clear all object log in Object Log list
(5) Close up	Click to close up the Object Log List
(6) Object Log List	Display the face object logs. It can display 32 object logs and when the list is full, the first row of object log will be replaced.

2.3 Function Buttons in Playback Mode

To switch in Playback mode, click **Playback** button at the lower right corner of Advanced/Preview mode user interface



Name	Function
(1) Split Screen Mode	Select from 6 kinds of split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen. To view 32 channels, click 16 split screen button to switch channel display.

If there are only 4 cameras, you won't be able to switch to 9, 13, and 16 split screen mode.

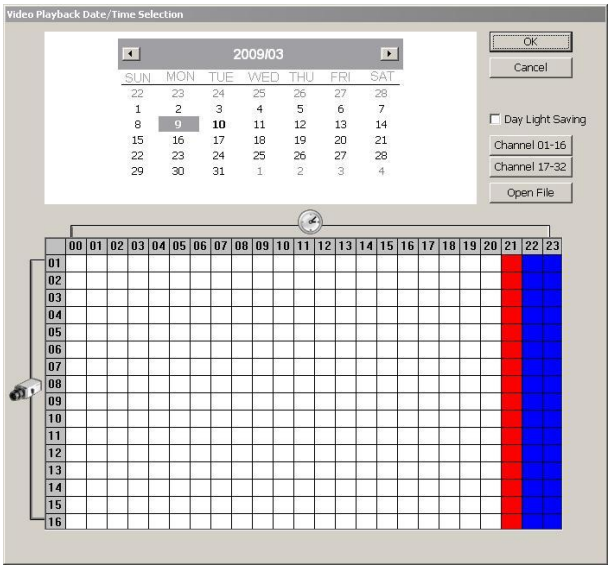
To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.

(2) Exit	Close the playback mode and back to preview mode
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

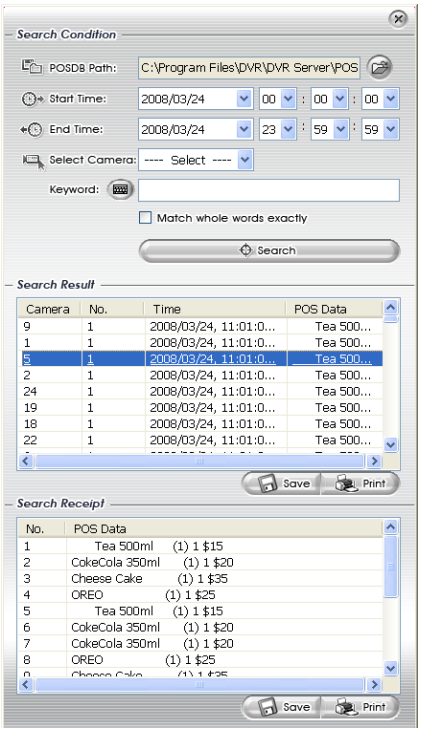
(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous**: Go back to the previous frame. **Slower**: Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x, 1/16x, or 1/32x. **Rewind**: Wind back the recorded video file. **Pause**: Briefly stop playing the recorded video file. **Play**: Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x,16x or 32x. **Next**: Go to the next frame. **End:** Go to the end of the recorded video file.
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − **OPEN FILE:** user can open the recorded file from HDD − **Channel 01~ 16**&**Channel 17 ~ 32:** Switch to different channel group of playback calendar.

Name	Function
	– **Day Light Saving:** the playback calendar will show the available video records during day light saving time period.


Video Playback Date/Time Selection
2009/03
SUN MON TUE WED THU FRI SAT
OK
Cancel
Day Light Saving
Channel 01-16
Channel 17-32
Open File
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9)iPOS Serach	To find iPOS event by keyword or period. **POSOB Path:** where the iPOS data located. **Start Time:** select the search start time and date **End Time:** select the search end time and date **Select Camera:** select the camera for iPOS events search **Keyword:** enter a keyword to search iPOS event - **Match whole words exactly:** the iPOS event must 100% match the keyword that user has entered. The search result will display in Search Result windows. User can click specific iPOS event to view and the iPOS detail will display in Search Receipt. To save the search result, click **Save** button. Click **Print** button to print the search result. To save the selected iPOS search receipt, click **Save**. Click **Print** to print the selected iPOS event's detail.



(10) Export	Export includes Snapshot, Print, Output Video Clip, and Backup function. ▪ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ▪ **Print:** Print the screen shot. ▪ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 3.3.1). ▪ **Backup:** Save the playback file to USB device or DVD-ROM disk (see also Chapter 4.6 Backup Setting).

Name	Function
(11) Segment	Keep a portion of the recorded video (see also Chapter 3.3.1).
(12) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. Camera 1 Camera 2 Camera 3 Camera 4 Camera 5 Camera 6 Camera 7 Camera 8 Camera 9 Camera 10 Camera 11 Camera 12 Camera 13 Camera 14 Camera 15 Camera 16 03/10/2009 00:00:57 x1 Click to exit from full screen mode When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.

When there are dual monitors with 32 channels, the full screen mode will split into 16 channels on each monitor.

(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Bookmark	Mark a reference point when previewing the recorded video file to which you may return for later reference. You may also set it to protect the file. (See also Chapter 3.3.2)
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 3.3.3)
(16) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(17) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion , Video Loss, POS) . (See also Chapter 3.3.4)
(18) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.3.5).
(19) Audio	Enable/disable audio sound.
(20) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(21) Watermark	To verify the playback video has not been modified (also see Chapter 3.3.6)

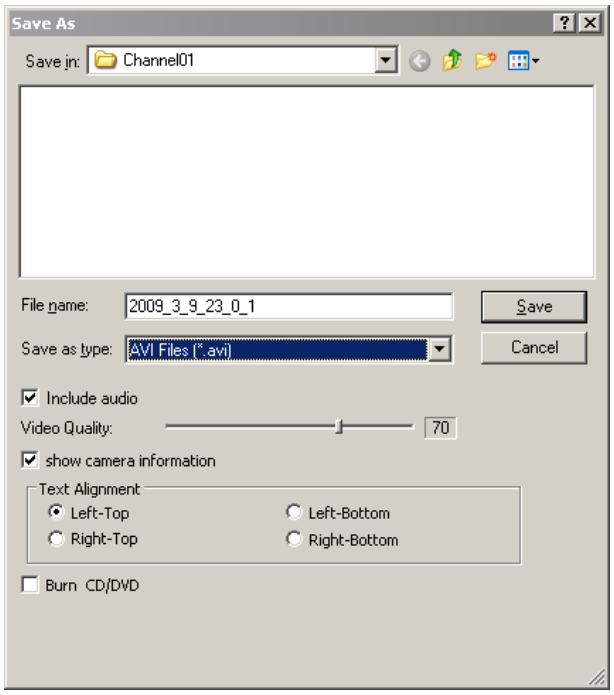
2.3.1 To Cut and Save the Wanted Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.

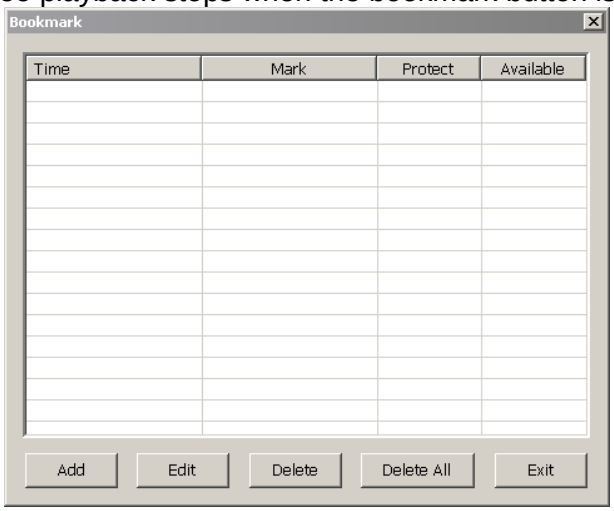
3. Click **Export** → **Output Video Clip** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file or choose to **Burn** the video segment to CD/DVD ROM (only for .*mpeg file format).
5. Select the file type and select the camera information display position when playback. The camera information will be the information of server name that user has defined in Network Setting.
6. If the select the file type is *.avi, user can mark **Included audio** to include audio in output video segment.
7. To adjust **Video Quality** if needed.
8. Click **Save** to save the video segment.

Right-click function is disabling for security issue.

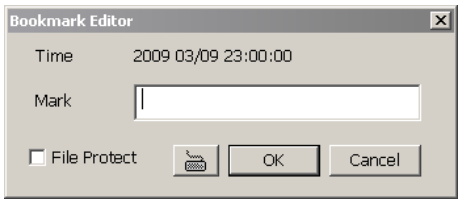


2.3.2 To Bookmark a Section of the Video

1. Click **Bookmark**. The video playback stops when the bookmark button is executed.



2. In the Bookmark dialog box, you may do the following:
   - **Add** to include the new reference mark in the bookmark list. You may select to enable/disable **File protection.**



   - **Edit** to change the mark description or enable/disable file protection.
   - **Delete** to remove the selected reference mark in the list.
   - **Delete All** to remove all the reference marks in the list.
   - **Exit** to close Bookmark dialog box.

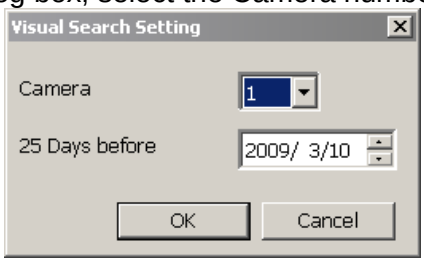
- When the bookmark is protected, the file won't be overwritten.
- The protected bookmark file will be deleted when the **Delete the recorded data** is enable in the **System setting**.(also refer to 4.1 System setting)

---

3. Select and click one in the bookmark list to preview the file.

2.3.3 To Search Using the Visual Search

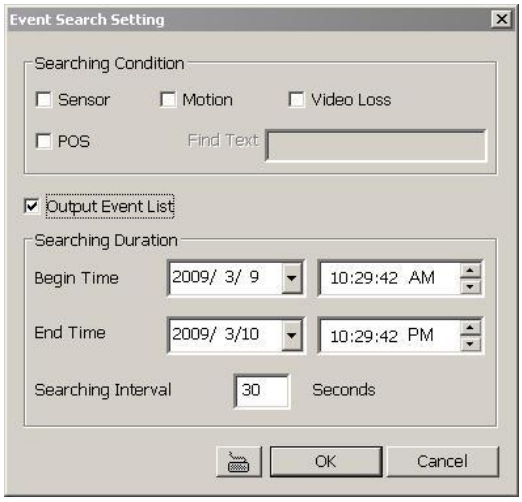
1. Click Visual Search.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minute of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .

2.3.4 To Search Using the Event Search

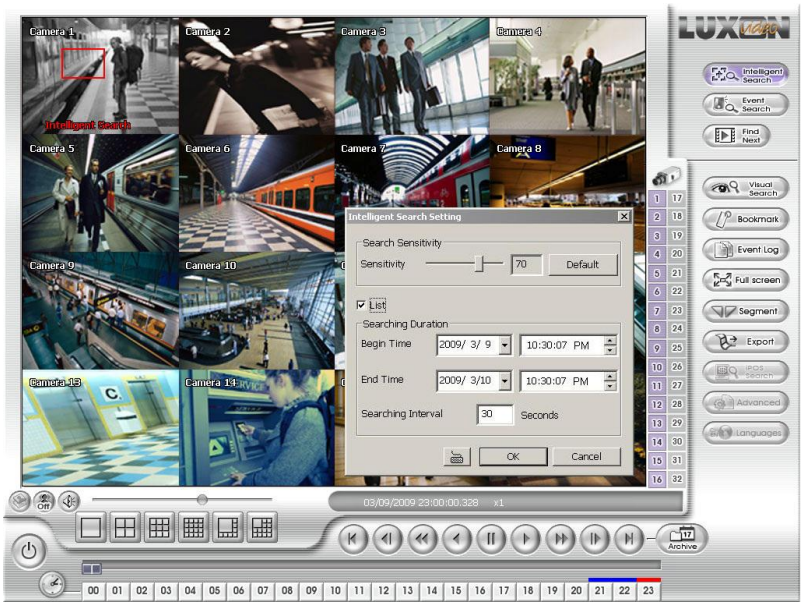
1. Click on the video screen on where you want to search.



2. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.
3. In the Event Search Setting dialog box, check the type of condition you want to search. If you select POS, in the Find Text box, type the word. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. Just check the **Output Event List** box. In the Search Duration section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time for in a period of time won't list out the same events. Then, click **OK** to start searching.
5. When the Event list appear, click and select the item you want to view.

2.3.5 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click .
4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time for in a period of time won't list out the same events. Then, click **OK** to start searching.



2.3.6 Watermark Verification

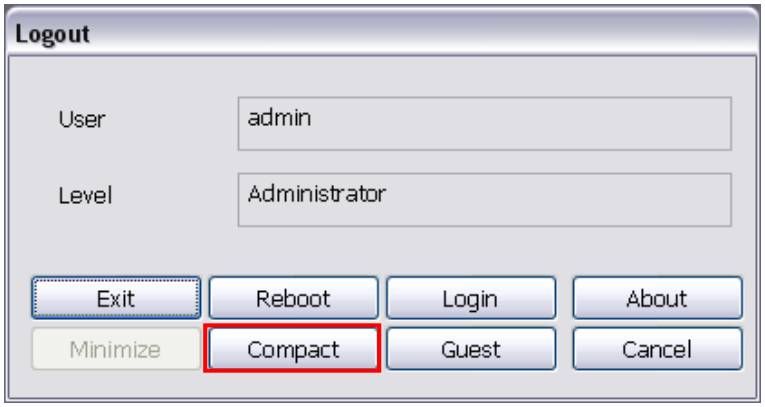
NVR's support watermark-checking to identify the authenticity of playback video. This program can only verify when in single channel full screen playback mode. Watermark verification doesn't support NVR's with hardware compression and video that is recorded from IP camera.

To verify the playback video doesn't been modified. Click to verify the playback video.

Watermark verification doesn't support on hardware compression products and video that is recorded from IP camera.

2.4 Function Buttons in Compact Mode

To view in Compact mode, click **Exit** button. In the logout dialog box, click **Compact**.

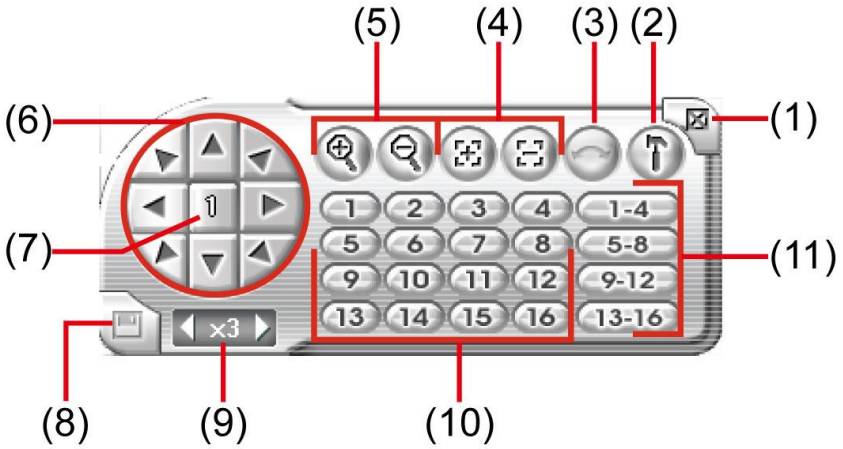


Name	Function
(1) Split Screen Mode	Select from 7 kinds of split screen type to view all the camera, or one camera over the other or alongside on a single screen.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge.
- When you are in multiple-screen mode, **Right click** the video screen of the camera and **Drag** on where you want to locate it. To only display one of the video in the multiple-screen mode, **Left click** the video screen you want to display.

(2) Auto Scan	Start/Stop video screen cycle switch
(3) Alarm	Alert and display warning info.
(4) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see Chapter 3.3)
(5) Advanced	Switch to Preview/Advanced mode.

2.5 Function Buttons in PTZ Camera Controller



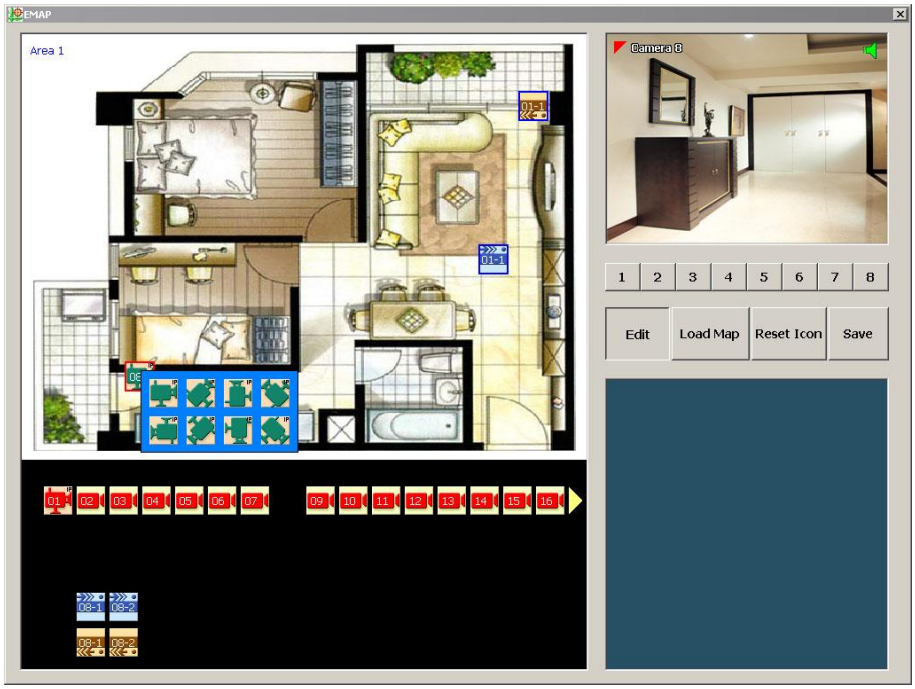
Name	Function
(1) Close	Exit PTZ camera controller.
(2) Setup	Configure PTZ cameras.(see Chapter 3.12)
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera.
(7) Camera ID panel	Display the PTZ camera number that is being operated.
(8) Save Camera preset position	Save the PTZ camera preset position number. Select the camera and click the preset position number and save it.
(9) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(10) Camera preset position number	Move the PTZ camera to the preset point.
(11) Group AutoPan	Select to automatically operate PTZ camera in group.

2.6 Setting Up and Using the EMAP

EMAP can hold up to 8 maps in *.bmp/*.jpg format. You may locate the camera, sensor and relay on the map.

2.6.1 To Set Up the EMAP

1. Click **Emap**.
2. When the Emap screen appears, click the area number (1 to 8 buttons) on where you want to insert the map.
3. Click **Load Map** to insert the map. When the open dialog box appears, locate and select the map and click **Open**.
4. When the inserted map appears on the Emap screen, click **Edit**. You may now drag the camera, sensor, and relay icons to its place on the map. Icons on the map can be relocated anywhere.
5. To set the camera direction, right click camera icon can select the camera direction in 8 angles.
6. If you are going to locate the icon on the map to other area, you need to drag the icon to the black pane at the bottom of the Emap screen and then switch to the area on where you want to locate the icon. To bring all the icons back to the black pane at the bottom of the Emap screen, click **Reset Icon**.

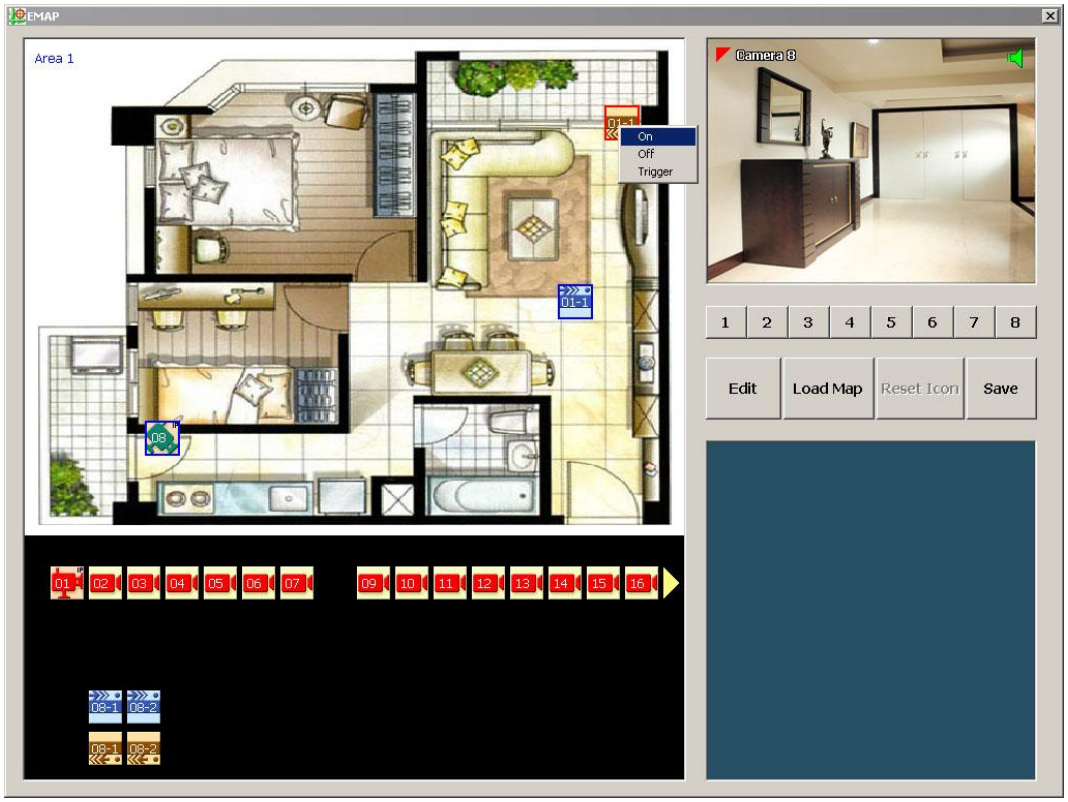


7. When you are done, click **Save** button to save the new setting. To close Emap screen, click **X**.

2.6.2 To Use the EMAP

To use the EMAP:

1. Click **E-map**.
2. In the Emap screen, click the camera icon to switch on the area where the camera is located on the map and to display the video at the upper right corner of the Emap screen. At the lower right corner of the Emap screen, it lists all the warning message.

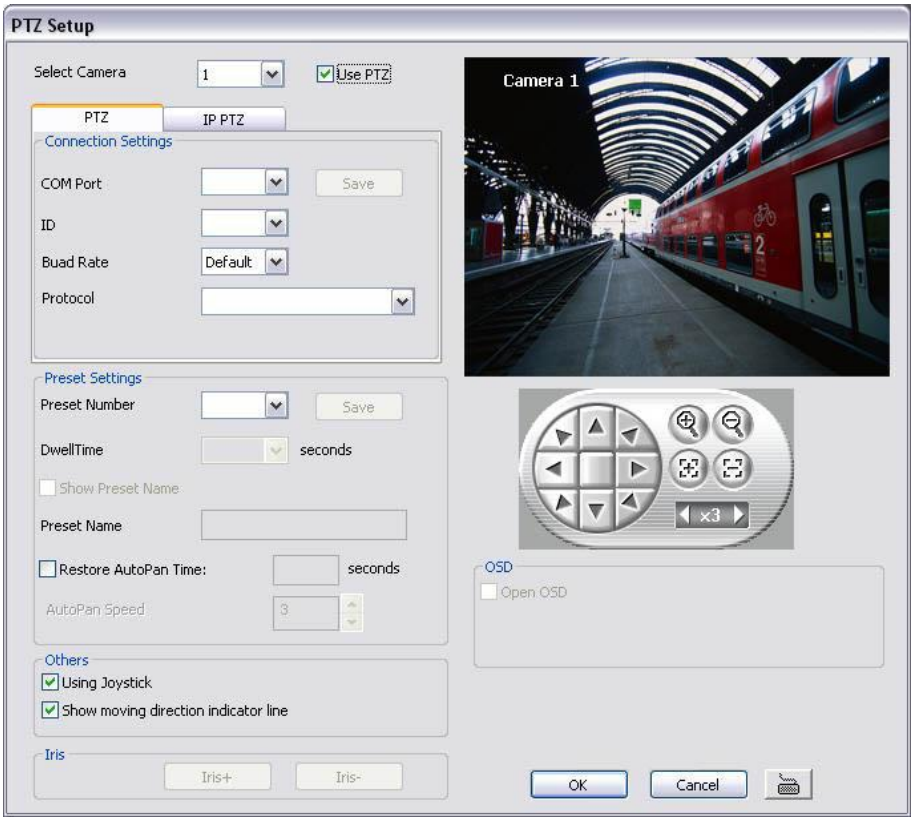


3. To control relay, right-click relay icon and select status (on, off, or trigger) of relay.
4. To view different Emap, click Emap number button (1 ~ 8).
5. Click **X** to close Emap screen.

2.7 To Setup the PTZ/IP PTZ Camera

2.7.1 Setup the PTZ Camera

1. In the PTZ control panel, click **Setup**.
2. When the PTZ Setup dialog box appears, select the camera number and check the **Use PTZ** box.



3. In the Connection Settings section, select the **COMPort** where the PTZ camera is connected, PTZ ID number and PTZ camera protocol. Then, click **Save** to keep the settings.
4. Use the PTZ control panel and adjust the position of the PTZ camera.
5. In the **Preset Setting** section, select the preset number to assign a number for the PTZ camera current position. Set the **DwellTime** (1-60 sec) for how long the PTZ camera stays in that position before it moves to the next one. If you want to add description, check the **Show Preset Name** box and in the **Preset Name** text box, type the word. When done, click **Save** to keep the settings.
6. Repeat step 4 & 5, if you want to save another PTZ camera position.
7. **Restore AutoPan Time:** set a time period for restoring auto path function after the PTZ camera has been moved. Mark the check box and set the time period in second.
8. **Using Joystick:** Enable/disable **Using Joystick** such as USB joystick device.
9. **Show moving direction indicator line:** enable/disable to show the direction line when uses mouse drag on screen in PTZ mode.
10. **Iris:** To adjust the iris of PTZ camera. It may not support that depends on brand of the PTZ camera.
11. **OSD:** To allow call out PTZ camera factory's OSD setup menu. The OSD setup menu may vary that depends on the brand of PTZ camera.
12. When is done, click **OK** to save the setting or Click **Cancel**, to leave without saving the new setting.
13. When PTZ camera is enabling, user can control PTZ camera by using the mouse and on screen PTZ control bar.
14. Click on screen PTZ control icon to call out the control bar.

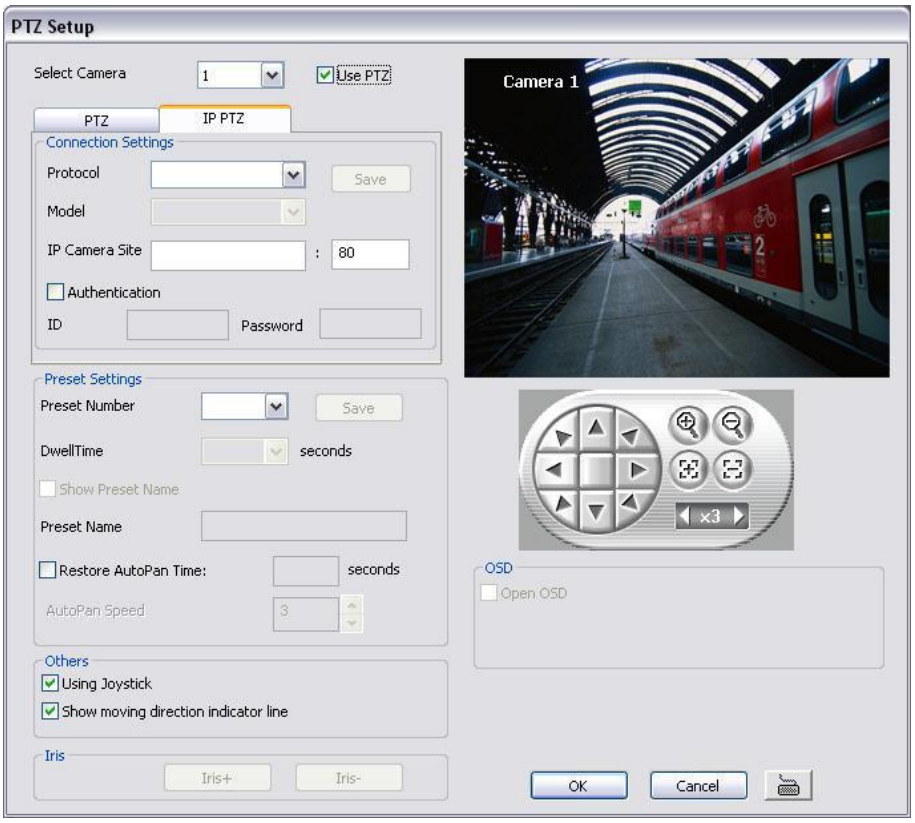
15. When PTZ control icon has been click on, it will turn to red, the mouse cursor will become a red cross, and PTZ control bar will show up on the screen.

- User can move the on screen PTZ controller to any position of screen
- The on screen PTZ controller only display on a channel screen at a time.

16. Using the red cross mouse cursor to zoom in/out the camera view by drag on the screen directly.
17. To focus in/out, click the button on PTZ control bar.
18.

2.7.2 Setup the IP PTZ Camera

1. In the PTZ control panel, click **Setup**.
2. When the PTZ Setup dialog box appears, click **IP PTZ** tab.
3. Select the camera number and check the **Use PTZ** box.



4. In the Connection Settings section, select the **Protocol** and **Model** that is brand of IP PTZ camera and enter the IP or URL of IP camera in **IP Camera Site** column. Mark the **Authentication** box if **ID** and **Password** is required when connecting to IP PTZ camera. And then, click **Save** to keep the settings.
5. In the **Preset Setting** section, use the PTZ control panel and adjust the position of the PTZ camera and select the preset number to assign a number for the PTZ camera current position.
6. Set the **DwellTime** (1-60 sec) for how long the IP PTZ camera stays in that position before it moves to the next one. If you want to add description, check the **Show Preset Name** box and in the **Preset Name** text box, type the word. When done, click **Save** to keep the settings.
7. Repeat step 5 & 6, if you want to save another IP PTZ camera position.
8. **Restore AutoPan Time:** set a time period for restoring auto path function after the IP PTZ camera has been moved. Mark the check box and set the time period in second.
9. **Using Joystick:** Enable/disable Using Joystick such as USB joystick device.
10. **Show moving direction indicator line:** enable/disable to show the direction line when uses mouse drag on screen in PTZ mode.
11. **Iris:** To adjust the iris of IP PTZ camera. It may not support that depends on brand of the PTZ camera.
12. **OSD:** To allow call out IP PTZ camera factory's OSD setup menu. The OSD setup menu may vary that depends on the brand of IP PTZ camera.
13. When is done, click **OK** to save the setting or Click **Cancel**, to leave without saving the new setting.
14. When PTZ camera is enabling, user can control PTZ camera by using the mouse and on screen PTZ control bar.
15. Click on screen PTZ control icon to call out the control bar.

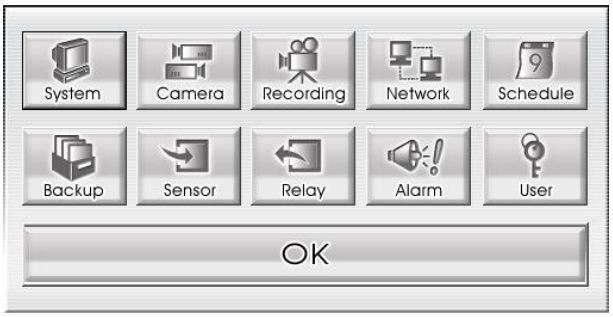
16. When PTZ control icon has been click on, it will turn to red, the mouse course will become a red cross, and PTZ control bar will show up on the screen.

- User can move the on screen PTZ controller to any position of screen
- The on screen PTZ controller only display on a channel screen at a time.

17. Using the red cross mouse course to zoom in/out the camera view by drag on the screen directly.
18. To focus in/out, click the button on PTZ control bar.

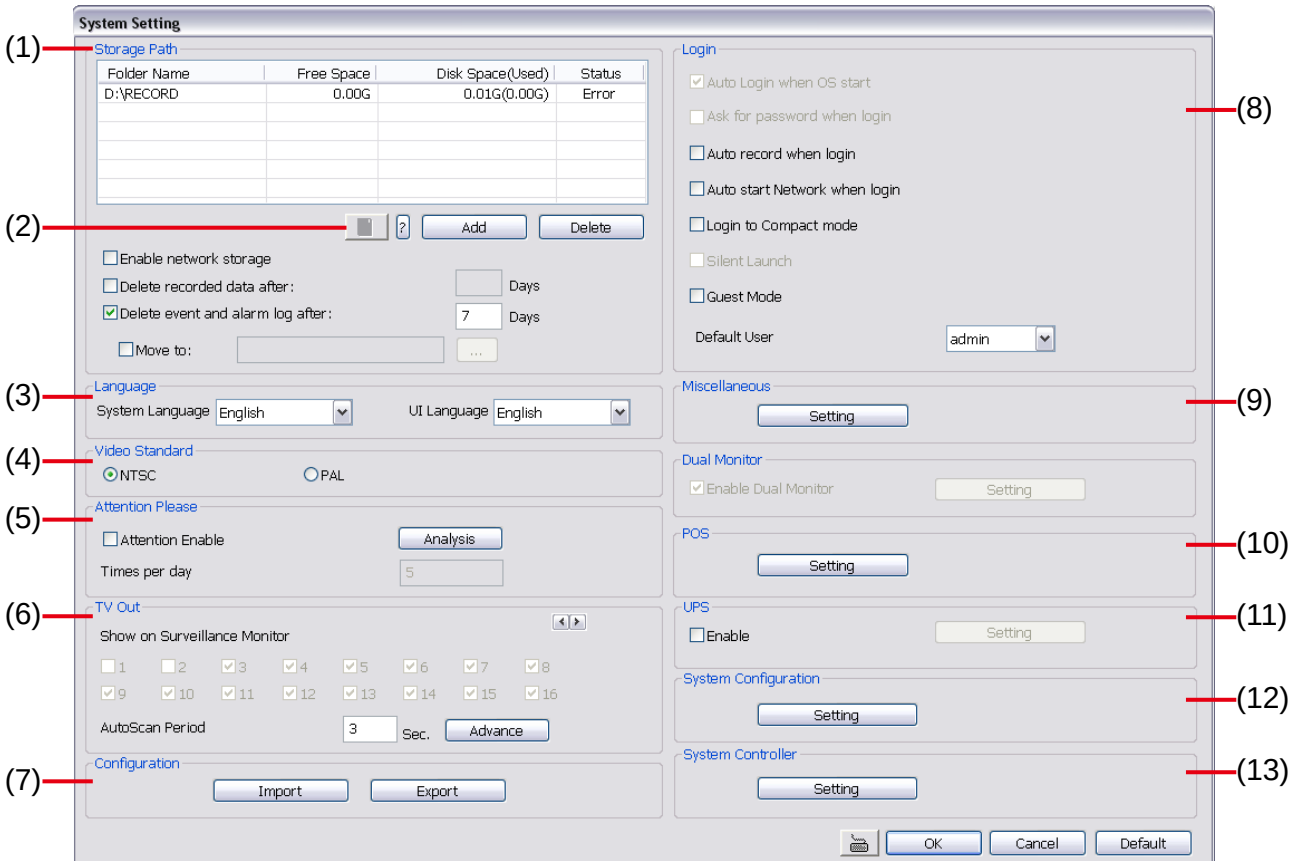
Chapter 3 Customizing the DVR System

In the Preview/Advanced screen mode, click Setup button to customize your DVR. When the DVR configuration setup selection appears, select and click the buttons you want to change the setting.



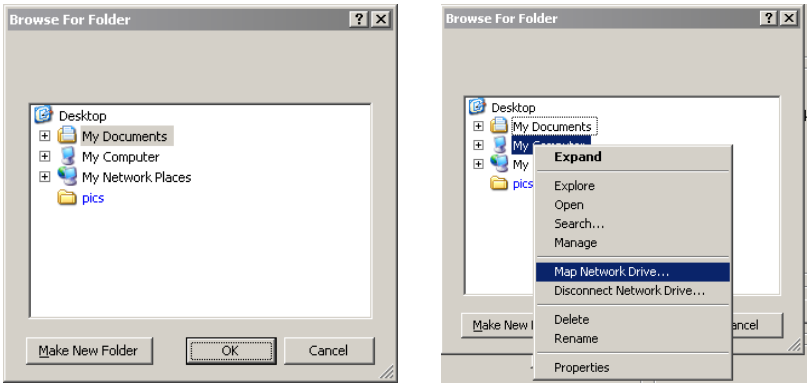
3.1 System Setting

In the System Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default** to revert back to original factory setting.

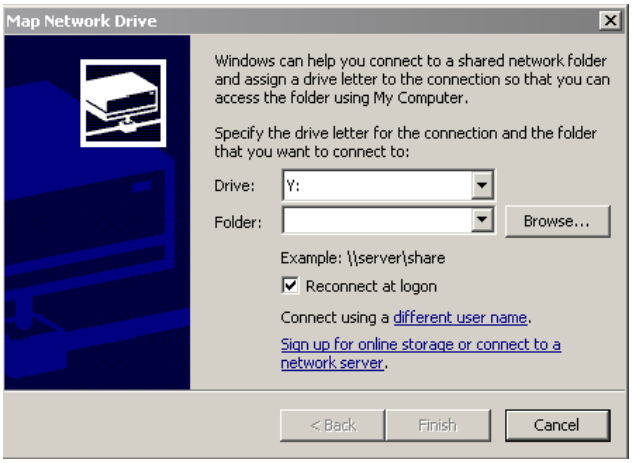


(1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. You may also add additional network-attached storage (NAS) for extremely high storage capacity. Select the Enable network storage check box to send the recorded video in network-attached storage. ***To add network storage, the Internet storage drive/folder must be mapped as Network Driver in DVR server***. Enable network storage first, and then, click Add. In **Browse For Folder** windows, select drive C and right click mouse button, select **Map Network Drive** option.



In the **Map Network Drive** windows, select the **Drive** and fill in the network drive direction in **Folder** column if you know. Or click **Browse** to find the folder direction. Click **Finish** to complete the network drive mapping. After the network drive has been added, user needs to create a folder for network storage. In **Browse For Folder** windows, select the network drive and right click mouse button to add a new folder. And then, click **OK**. User should see a new storage folder display in Storage path list.

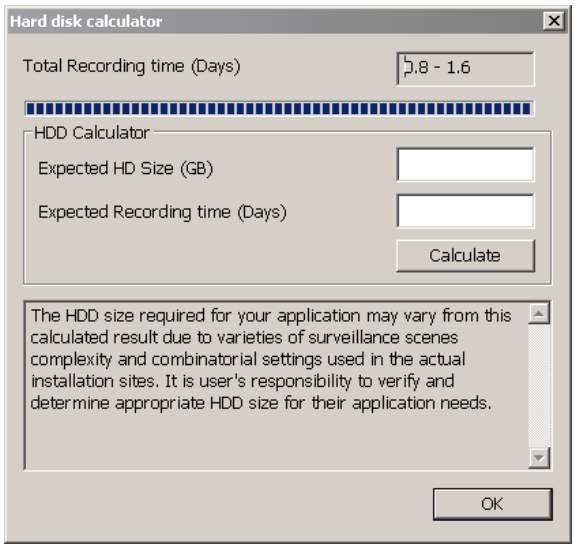

Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Y:
Folder:
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

By default the data is stored in C:\Data, to insert another storage path, click **Add**. To remove the selected path, click **Delete**. If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box. If you want the system to automatically erase the event and alarm log after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box. To change logs save direction, enable **Move to** and select the new save direction

(2) Hard Disk Calculator

Estimate the hard disk recording capacity. The result of calculation is a rough value which only for reference. The hard disk record capacity will be varied by the real record quality and complexity of video scene.

Click , the hard disk calculator windows will show up. **Total Recording time** is the current hard disk recording capacity. Enter the expect hard disk size or expect recording time in **Expected HD Size** or **Expected Record time**, and then click **Calculate** button. Click OK to exit the hard disk calculator windows. The hard disk calculation will base on the recording setup and current hard disk setup.


Hard disk calculator
Total Recording time (Days)
1.6 - 1.8
HDD Calculator
Expected HD Size (GB)
Expected Recording time (Days)
Calculate
The HDD size required for your application may vary from this calculated result due to varieties of surveillance scenes complexity and combinatorial settings used in the actual installation sites. It is user's responsibility to verify and determine appropriate HDD size for their application needs.
OK

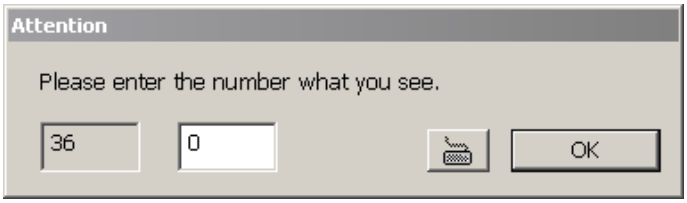
(3)Language

Customize the system to display the system, interface, and tool tips based on the selected language. By default the language is in English.

(4) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(5) Attention Please



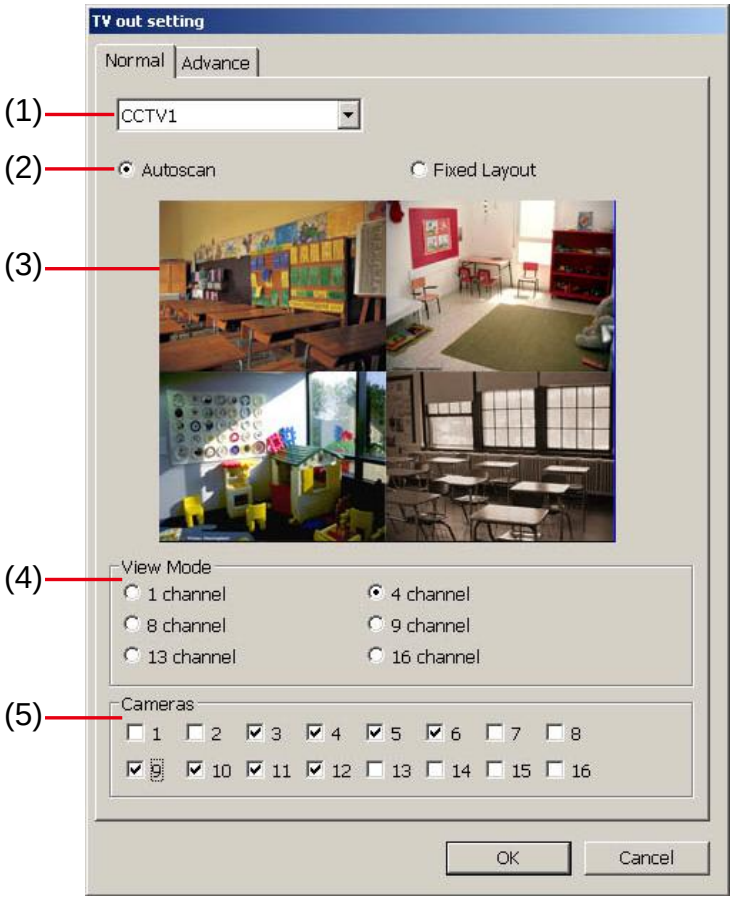
Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box. To check the graph on how fast the person response, click **Analysis**.

When this feature is enabled, the Attention dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.

(6) TV Out

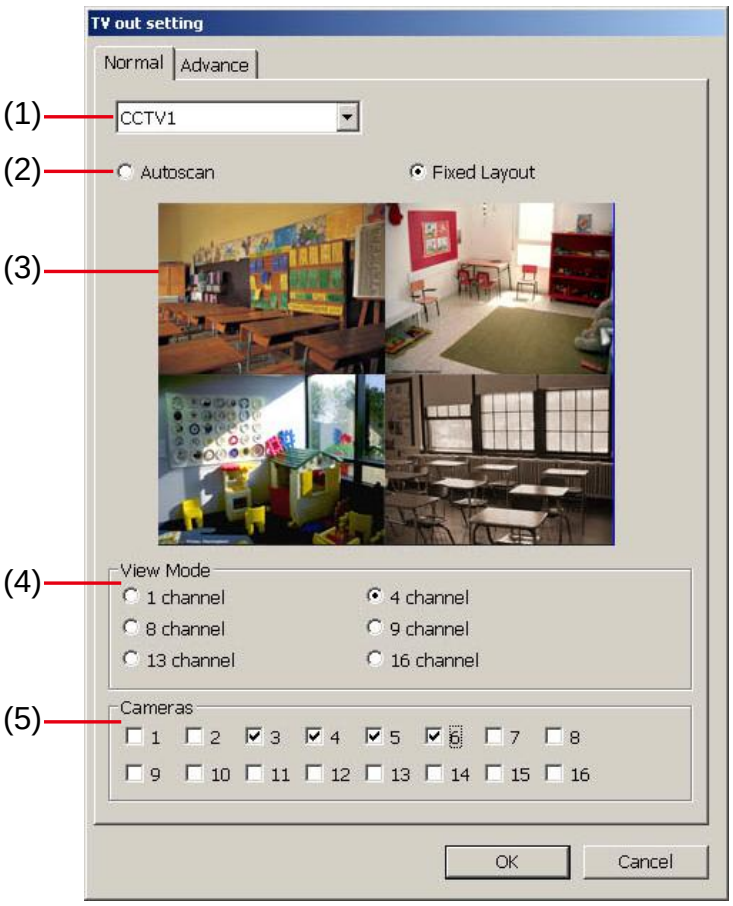
Select the camera you want to appear on TV and set the time gap from 3 to 10 sec. before it switches to the next camera.

- **Advance** button (some models may do not have this feature)
  Select the channel and camera user want to display on TV.
  In Advance mode, user has two types of display selection – Autoscan and Fixed layout.
  - **Autoscan**
    (1) Select the video source from drop down list. If user only installs one capture card on the computer, then there is only one video card channel for selection.
    (2) Select the display mode as **Autoscan**.
    (3) Preview screen: Live camera video would be displayed here.
    (4) View Mode: Select the view mode user wants to display on screen. The system will auto cycle switch to display the next channels.
    (5) Cameras: User can select the cameras that user wants to display on the screen. Only those selected channels would be displayed on the screen. Also, the camera will be displayed by the selecting order.



- **Fixed Layout**

  (1) Select the video source from drop down list.
  (2) Select the display mode as **FixedLayout**.
  (3) Preview screen: the selected camera video will preview in here.
  (4) View Mode: Select the view mode of TV out display.
  (5) Cameras: User can select the cameras that user wants to display on the screen. Only those selected channels would be displayed on the screen. Also, the camera will be displayed by the selecting order.



(7) Configuration

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**.

(8) Login

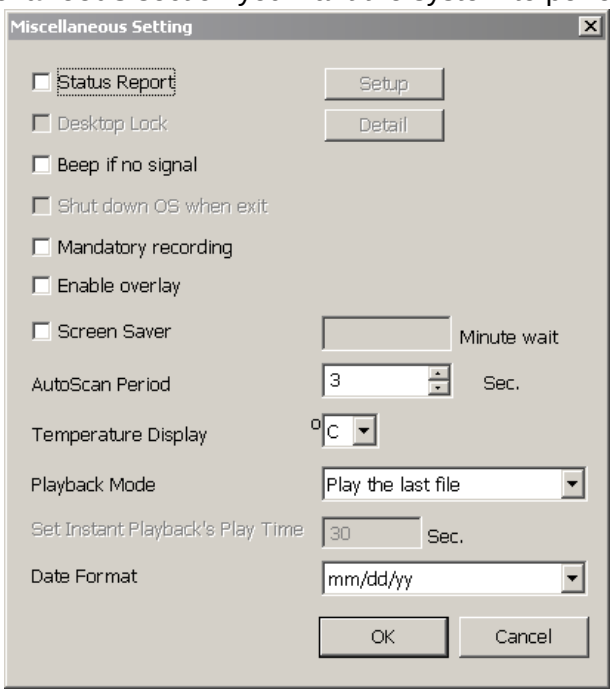
Enable the conditions in Login section you want the system to automatically carry out.

- **Auto record when login**
  Automatically start video recording when the DVR system is executed.
- **Auto start Network when login**
  Automatically enable DVR network connection when login into DVR program.
- **Login to compact mode**
  Switch to compact mode directly when the DVR system is executed.
- **Guest Mode**
  Automatically log in Guest mode when the DVR is executed. In guest mode, the functions are limited to preview and playback only.
- **Default user**

Automatically log in to the selected default user when the DVR system is executed.

(9) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.



- **Status Report**
  Send a daily system event and attention analysis report. To change the e-mail settings, click **Setup**.
- **Beep if no signal**
  Make sound when the video signal is lost.
- **Mandatory Record**
  Always record video when software is running
- **Enable Overlay**
  To enhance video signal for better video quality.
- **Screen Saver**
  Set a period time to enter screen saver mode when system idle.
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Temperature Display**
  Select the format of temperature -- °C or °F
- **Playback Mode**
  Select the mode of playback the video.
  - ✓ **Select date and time:** Select the date and time which user wants to playback.
  - ✓ **Play the last file:** Automatically playback the video from the last hour
  - ✓ **Instant Playback:** Automatically playback the video which has just recorded. To set the instant playback time period, fill in the time in second at **Set Instant Playback's Play Time** column.
- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode

(10) POS

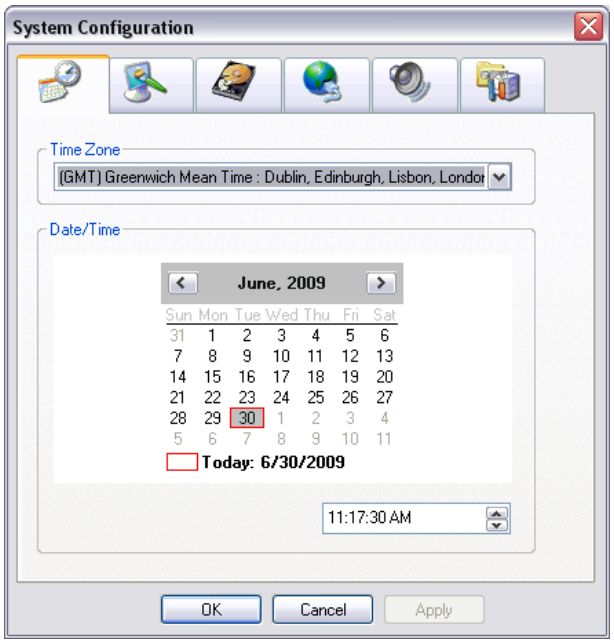
Set from which camera screen to display the data from the POS equipment. Click **Setting**, to set the POS Console Setting. (see also Chapter 4.1.1)

(11) UPS (Uninterruptible Power Supply)

Protect the system from damaging, such as power surges or brownouts. This automatically gives time to close the DVR system properly when the battery backup power has reached the Shutdown when capacity below percentage level setting. The UPS device must be connected to your computer (see also Chapter 4.1.2).

(12) System Configuration

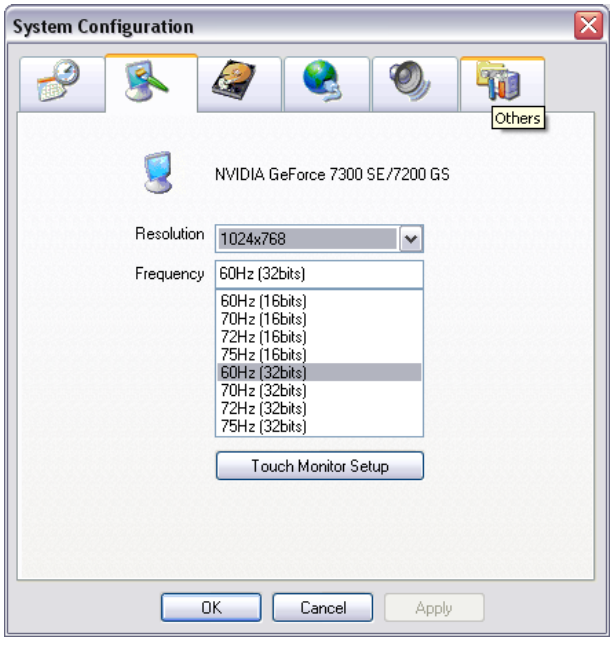
Date/Time Setup


System Configuration
Time Zone
(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, Londor
Date/Time
June, 2009
Sun Mon Tue Wed Thu Fri Sat
31 1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 1 2 3 4
5 6 7 8 9 10 11
Today: 6/30/2009
11:17:30 AM
OK
Cancel
Apply

1. Select the **Time Zone** of DVR server located.
2. Select the **Month** and **Date**. Click arrow button can switch to different month.
3. Adjust the **Time** by click spin box arrow button.
4. Click **OK** to save the configuration.

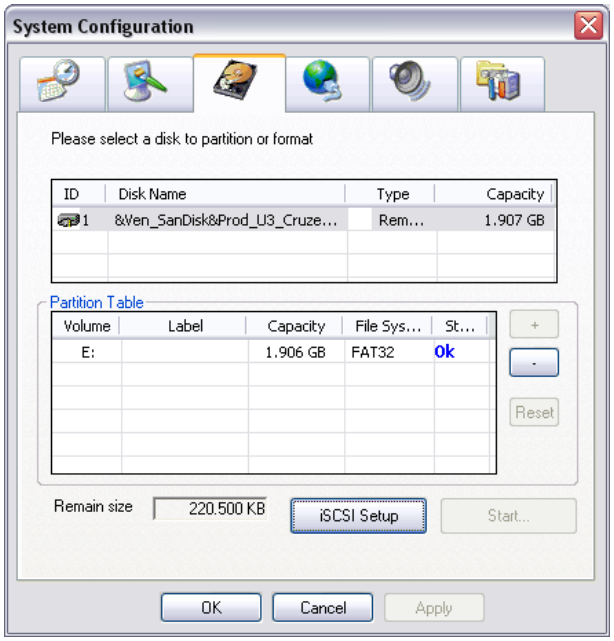
Display Setting

Adjust resolution of display.

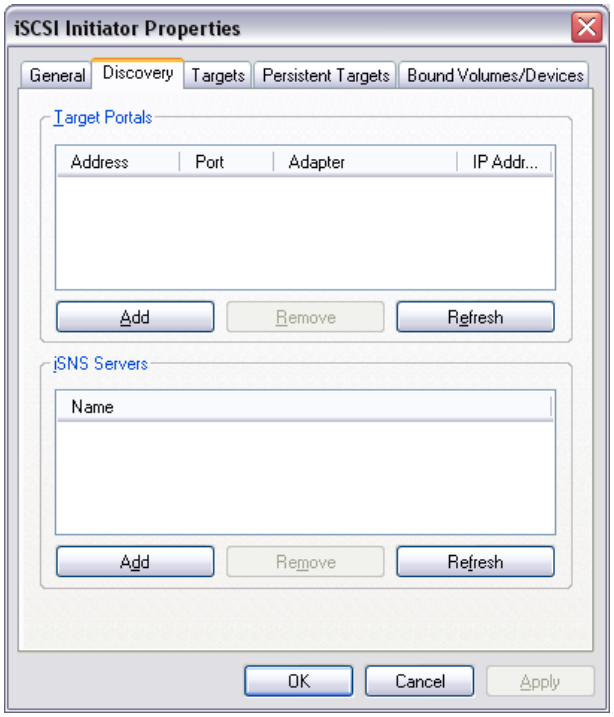


Disk Management

Manage and format the hard disk drive. Please refer to Chapter 2.1.1 for formatting and partition hard disk.

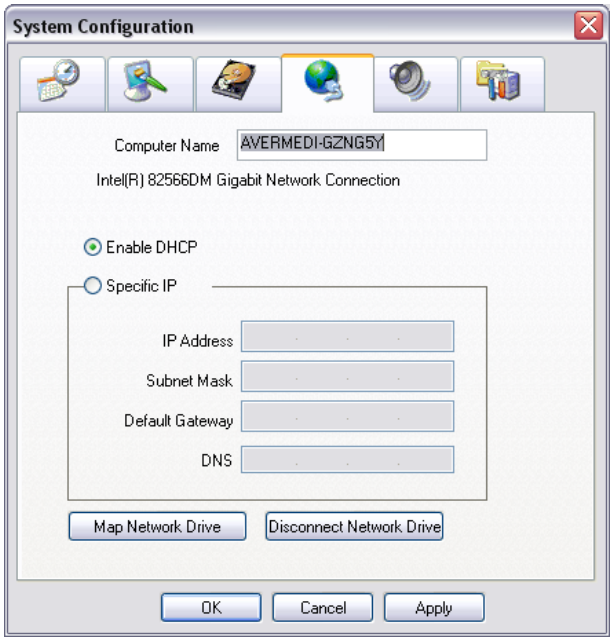


Also, DVR system supports iSCSI HDD setup now. Click **iSCSI Setup** to configure.



Network Setting

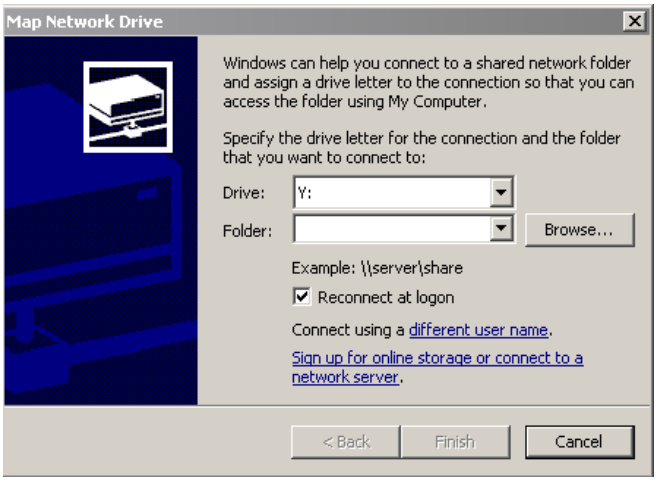
Configure the network setting (IP address, subnet, DNS, and son on…) of the system.



- **Enable DHCP:** To use DHCP server assigning DVR server an IP address.
- **Using the following IP address:** Assign a fixed IP address for DVR server
- **IP ADDRESS:** Assign a constant IP address which a real IP addresses give from ISP to DVR system.

Do Not assign the DVR to 1.0.0.0 network segment. It will cause the DVR cannot access to Internet due to the un-recognize to 1.0.0.0 IP segment.

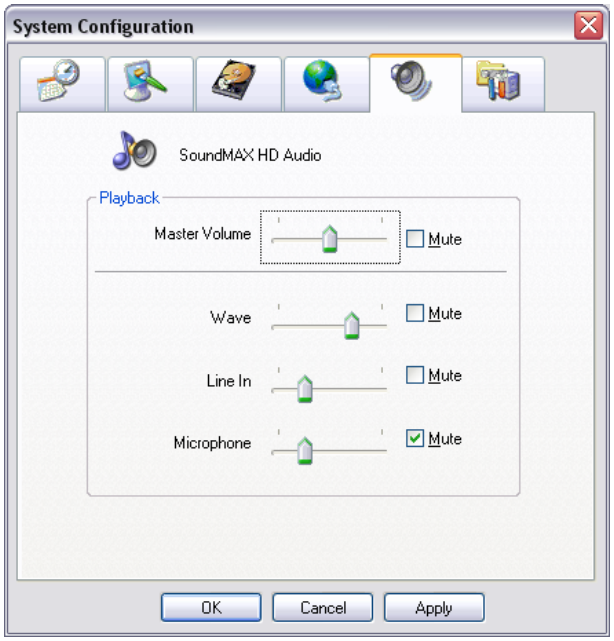
- **Mask:** It is a bitmask used to identify the sub network and how many bits provide room for host addresses. Enter the subnet mask of the IP address which user has assigned to DVR system.
- **GATEWAY:** A network device act as a passageway to internet. Enter the network gateway IP address
- **DNS:** Domain Name Server translates domain names (such as www.abb.com.tw) to IP addresses. Enter the IP address of DNS if it is available.
- **Map Network Drive:** To add network storage, the Internet storage drive/folder must be mapped as Network Driver in DVR server. Follow the below steps to map the network drive.
  1. Click **Map Network Drive** button. In the **Map Network Drive** windows, select the **Drive** and fill in the **IP address** and **file folder** of file server or NAS on your network in **Folder**.
  2. And then, click **Finish** to make the connection.


Map Network Drive
Windows can help you connect to a shared network folder and assign a drive letter to the connection so that you can access the folder using My Computer.
Specify the drive letter for the connection and the folder that you want to connect to:
Drive:
Y:
Folder:
Browse...
Example: \\server\share
Reconnect at logon
Connect using a different user name.
Sign up for online storage or connect to a network server.
< Back
Finish
Cancel

  3. After connection successful, user should see the network drive on the **Storage Path**.
  4. To disconnect the mapping network drive, click **Disconnect Network Drive**.

Audio Setting

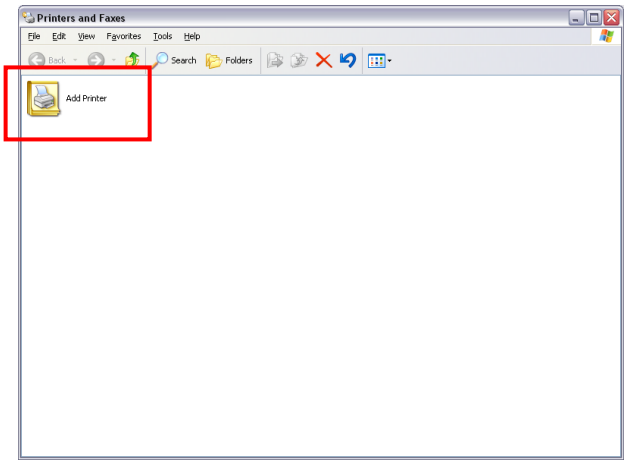
Adjust audio volume of system.



Others

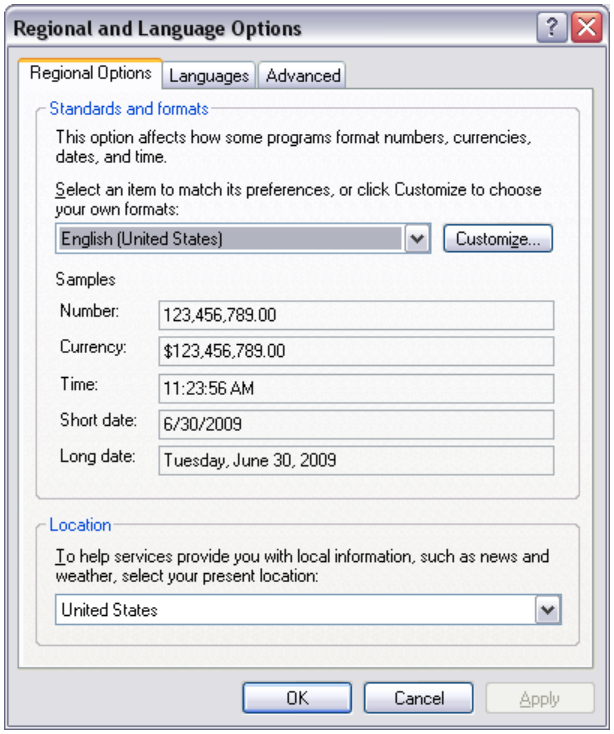
Printer Setting

Click **Add Printer** and following the wizard to install a printer.



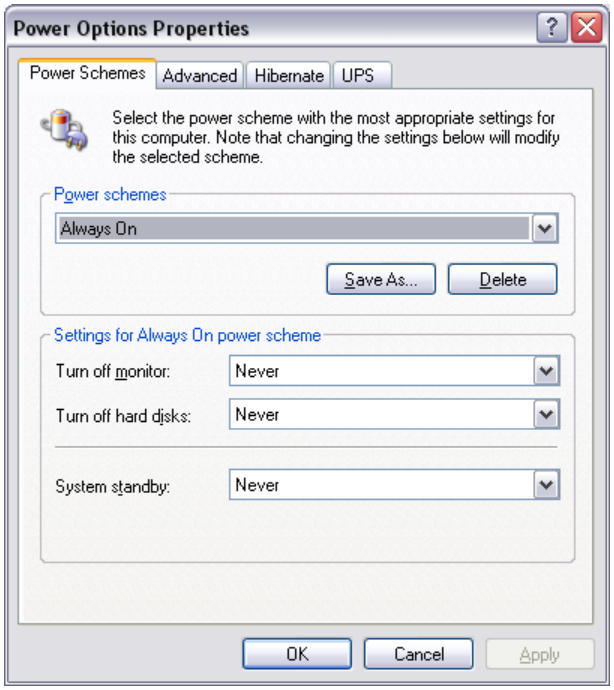
Regional/Language Setting

When DVR application is using different language of UI besides English, user can select the corresponding region and language in order to make UI display correctly.



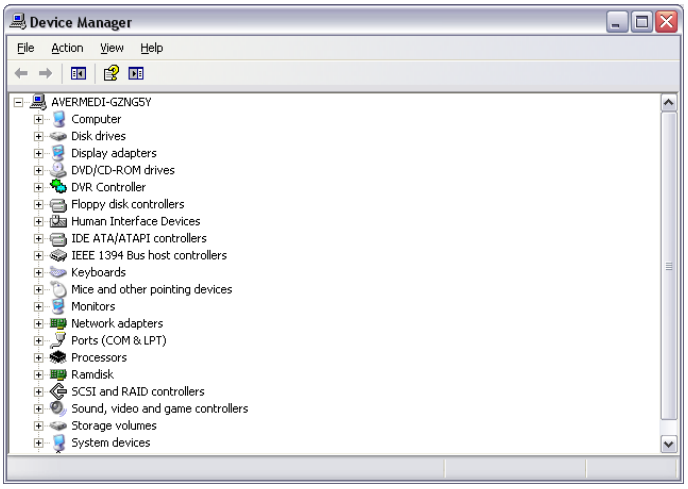
Power Management

To setup UPS configuration. Please refer to Chapter 4.1.2 UPS Connection.



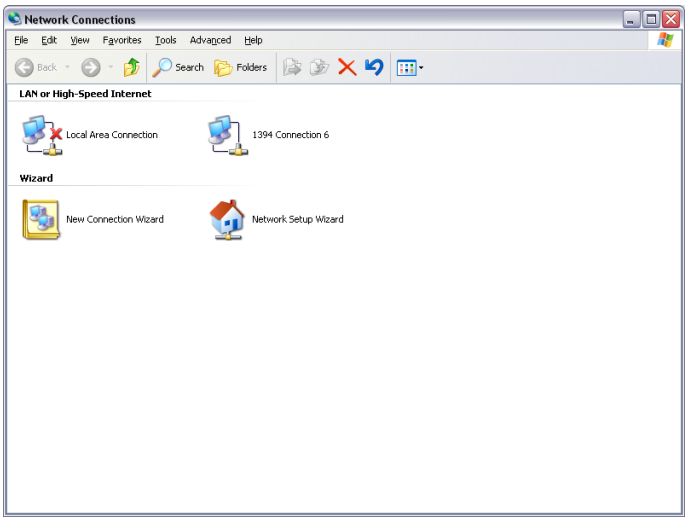
Device Management

To manage the DVR system devices.



Network Connection

To manage the connection of the network.



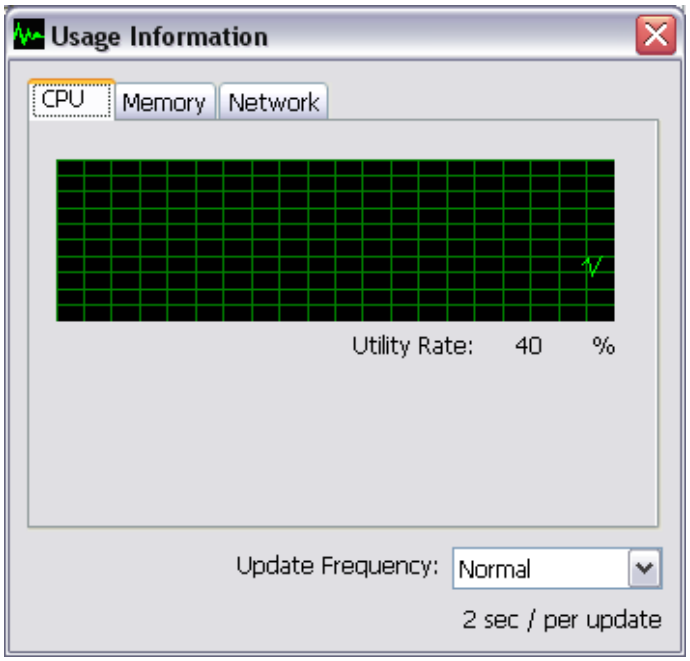
Phone and Modem options

To setup the modem dial-up settings.

Location Information
Before you can make any phone or modem connections, Windows needs the following information about your current location.
What country/region are you in now?
United States
What area code (or city code) are you in now?
If you need to specify a carrier code, what is it?
If you dial a number to access an outside line, what is it?
The phone system at this location uses:
Tone dialing
Pulse dialing
OK
Cancel

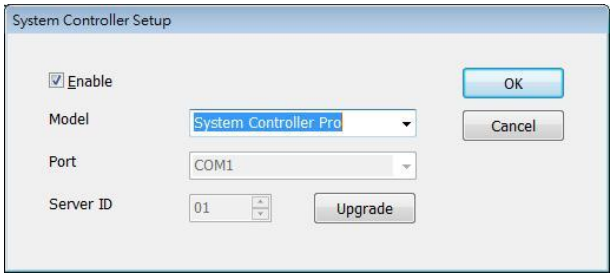
Usageinfo

To view usage of the system CPU, memory, and network.



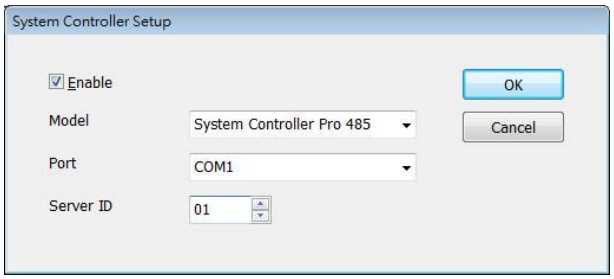
(13) System Controller Setup

To configure the parameters that is for communicating with the System Controller (an optional accessory). For operating of the System Controller, please refer to Chapter 4.1.3.



- **Enable** – Mark the check box to enable the System Controller function.
- **Upgrade** – To update the firmware of the System Controller (see also Upgrading the Firmware of the System Controller).
- **Model** – Select model of the System Controller. If System Controller is connecting to DVR through the

USB port, please select the **System Controller Pro** mode. If System Controller is connecting to DVR through the RS485 port, please select the **System Controller Pro 485** model.



- **Port** – Select the com port that is connected with the System Controller Pro.

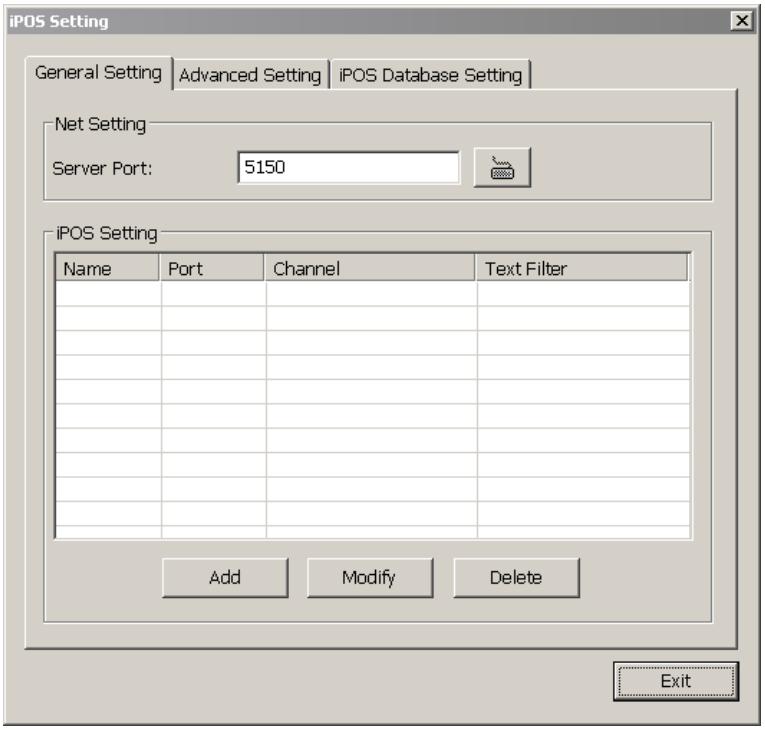
Only when System Controller is using RS485 port connect to DVR server, the port needs to be selected.

- **ID** – Set an ID for DVR server (0~99). This ID is a key for the System Controller to control the DVR server when there are more than one DVR servers are connecting with the System Controller through the RS485 port(see also Switch Control on Multiple DVR Servers)

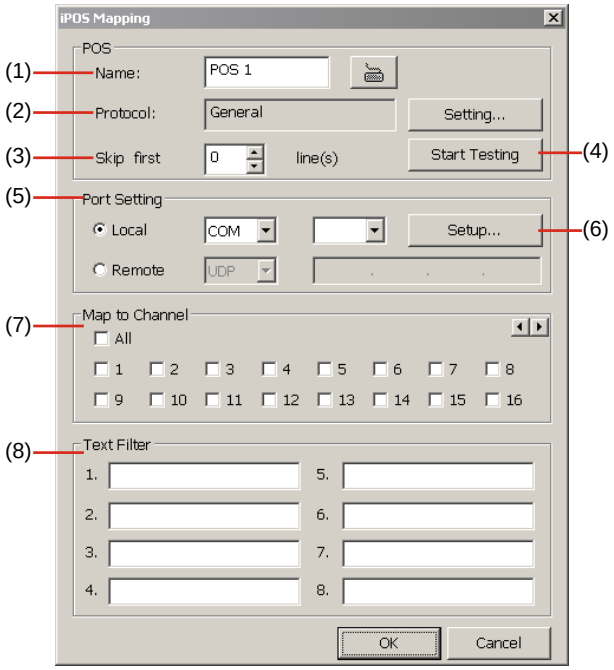
3.1.1 To Set the POS Setting

3.1.1.1 General Setting

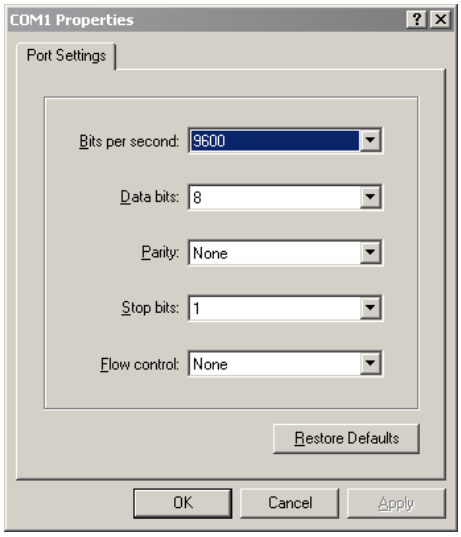
1. In the System Setting dialog box, POS section, click **Setting**.
2. In the POS Console Setting dialog box, click **Add** to set a new POS setting, **Modify** to change the POS setting, and **Delete** to remove the selected POS setting. Click **OK** to save and close POS Console Setting.



3. In the POS Mapping dialog box, click **OK** to accept the settings and **Cancel** to exit without saving the new setting.



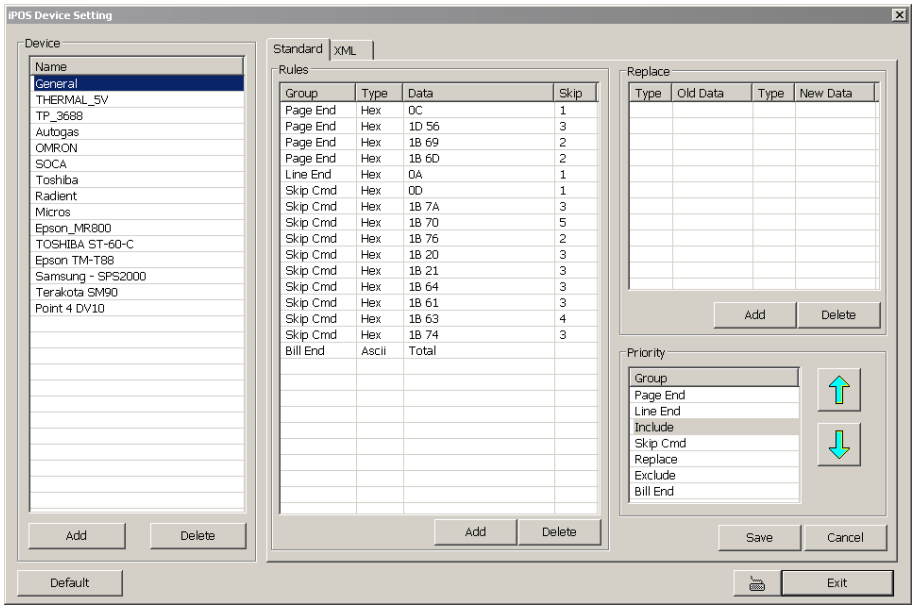
(1) Name: Enter a name to identify the POS.
(2) Protocol: To select the protocol, click **Setting** button (see Setup POS Device)
(3) Skip first: Set the number of lines you want to be removed
(4) Start Testing: Click to test POS setting. You will see a test result on the right side of POS Mapping window.
(5) Port Setting: Select the Local or Remote port to where it is connected.
Local: Select the COM port number which is connected.
Remote: Use the UDP protocol for remote connection if POS system can broadcast to Internet. Enter the IP address of the remote station.
(6) Setup…: Set the COM Properties. If you are not sure, please contact your POS service provider.



(7) Map to Channel: Select to which camera number to display the transaction text.
(8) Text Filter: Enter the word you want to be removed.

Setup POS Device

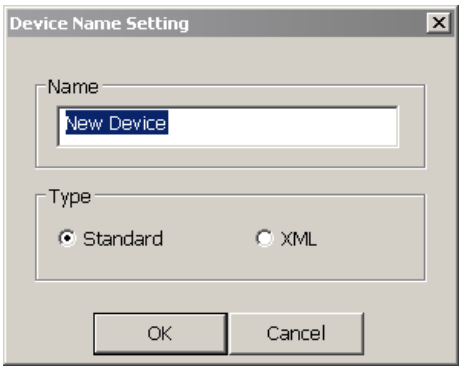
There are some default POS devices. If user uses the POS device beside defaults, user can add new POS device and rules. The POS device can be added up to 50 include defaults.



■ Setup Standard POS Device

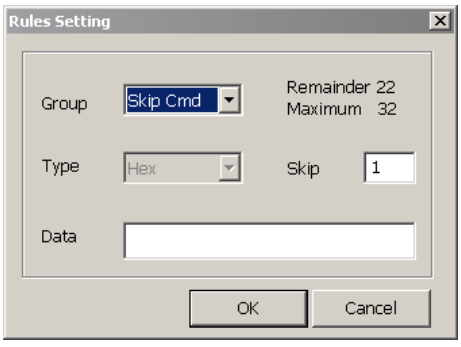
1. Add New POS Device

1. Click **Add**
2. Enter the POS device name in **Name** column
3. Select the **Type** as **Standard**
4. Click **OK** to save
5. To modify existing device, double click it.
6. Click **Default** can be reset back to original setting.



2. Add Rules

1. Select the POS device form device list
2. Click **Add** in Rules section
3. In Rule Setting windows, select **Group**. Each group has a limited number of times ; please refer to the "**Maximum**" and "**Remainder**" information in Rule Setting windows. The Line End, Page End, and Bill End group only can be set once.
   - **Line End:** set a rule to separate each line.
   - **Page End:** set a rule to switch page.
   - **Skip Cmd:** set a rule to discard a string or character.
   - **Include:** set a rule for a lime with a string or character to be displayed.
   - **Exclude:** set a rule for a line with a string or character to be concealed.
   - **Bill End:** set a rule to divide each transaction.
4. Select **Type** – Ascii or XML
5. Enter the string or character as the rule in **Data** column. The maximum length is 31 characters.

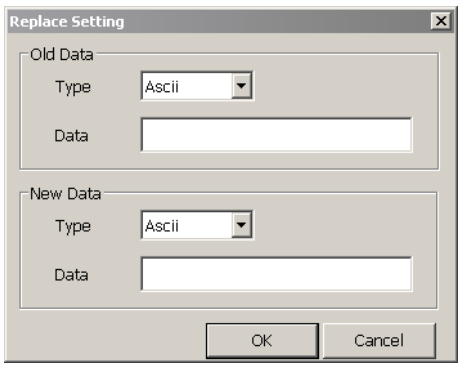


6. Click **OK**
7. Click **Save**. The configuration will be lost without saving.
8. To modify existing replace rules, double click it.

3. Character Replacement

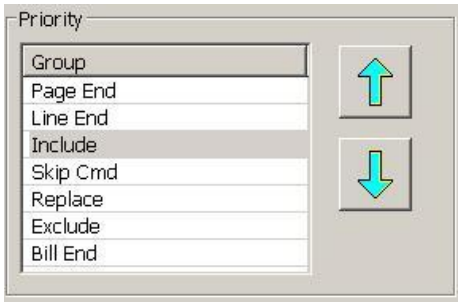
Set a rule to replace a character or word in POS data. The maximum replacement is 8.

1. Select a POS device from device list
2. Click **Add** in Replace section
3. **Old Data:** select the **Type**(Ascii or Hex) and enter word or character that wants to be replaced
4. **New Data:** select the **Type** (Ascii or Hex) and enter the word or character that will replace it in Old Data.
5. Click **OK**
6. Click **Save**. The configuration will be lost without saving.
7. To modify existing replace rules, double click it.



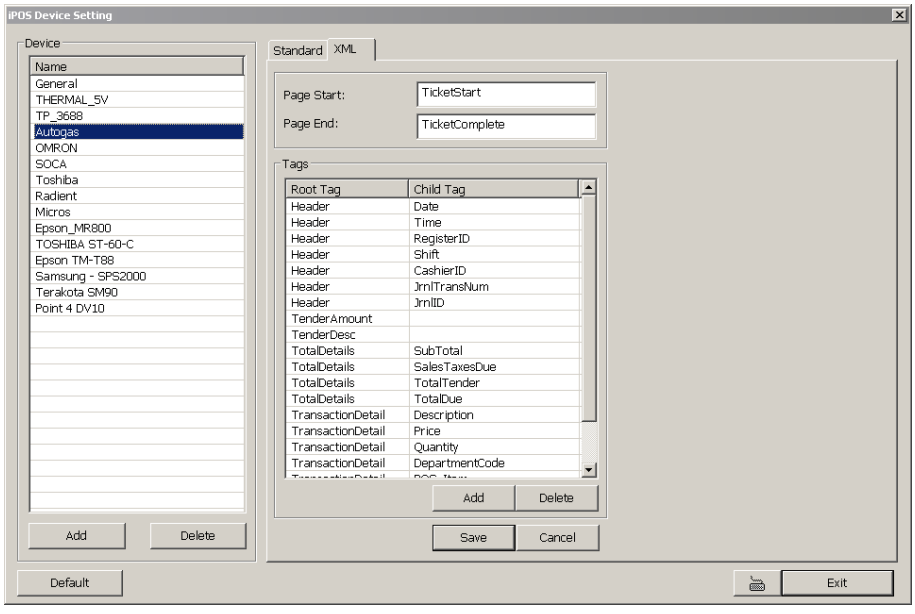
4. Adjust Rule Priority

User can set the priority of rule groups. Select the group and click up/down arrow button to move the priority level. The upper position, the priority is higher.



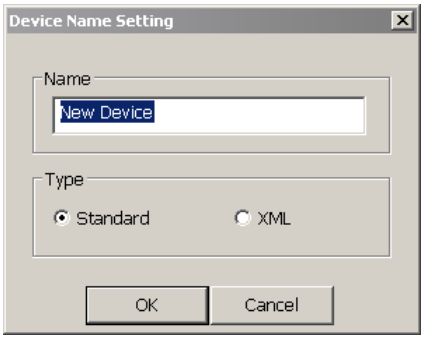
Setup XML POS Device

XML can only work with the POS data is transmitting in XML format.

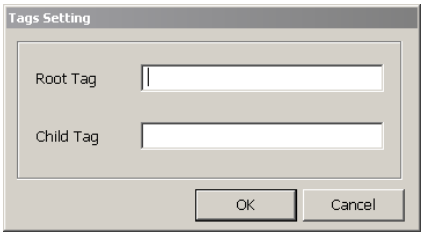


✓ **Device:** select or add a new device. Only device that supports XML can be configured in here. Click **Add**

to add a device. Enter device name and select Type as **XML**. The POS device can be added up to 50 include defaults.



- ✓ **Page Start:** Beginning of data for transaction
- ✓ **Page End:** End of data for transaction
- ✓ **Tag:** select a root tag and sub tag as a range for data transaction to DVR server. Click **Add** to set a tag. Click **Save**. The configuration will be lost without saving.



Please refer to the following example for more detail.

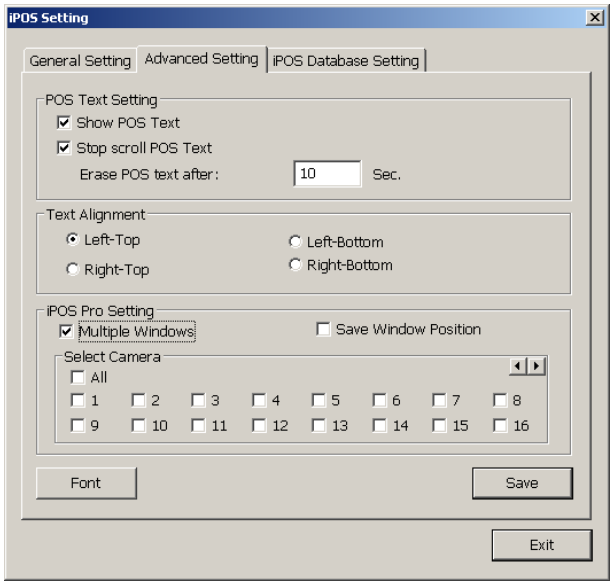
<TicketStart> → ***Page Start***
  <Header> → ***Root tag***
    <MessageVersion>1.0</MessageVersion>
    <Date>20060317</Date>
    <Time>164216</Time>
    <RegisterID>3</RegisterID>
    <Shift>4</Shift>
    <CashierID>000000009</CashierID>
    <JrnlTransNum>3</JrnlTransNum>
    <JrnlID>0</JrnlID>
  </Header>
</TicketStart>
<Item>
<SaleTotals>
<Item>
<SaleTotals>
<Item>
<SaleTotals>
<TenderEvent>
<TicketComplete> → ***Page End***

→ ***Sub tag***

3.1.1.2 Advanced Setting

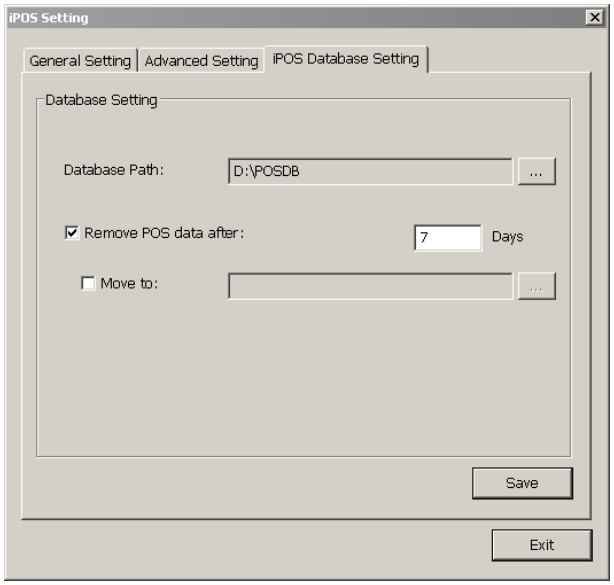
To setup POS text display position, text font and color.

1. In the System Setting dialog box, POS section, click **Setting** >> **Advanced Setting**
2. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
3. If user doesn't want POS data to be scroll up, mark **Stop scroll POS Text** and enter the time to delete POS text at **Erase POS text after** column.
4. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
5. Mark **Multiple Windows** to allow more than one iPOS live data window (see also iPOS Live in Preview mode) display on the preview screen mode.
6. Mark **Save Window Position** that iPOS live data window position(see also iPOS Live in Preview mode) will be saved as next time call out position when close
7. Select the **Cameras** that user wants iPOS live data to be display on Preview mode when the iPOS Live function has been enabled. To select all cameras, mark **All**.
8. To change the POS data font and color, click **Font**.
9. When it is done, click **Save** to complete the configuration.



3.1.1.3 POS Database Setting

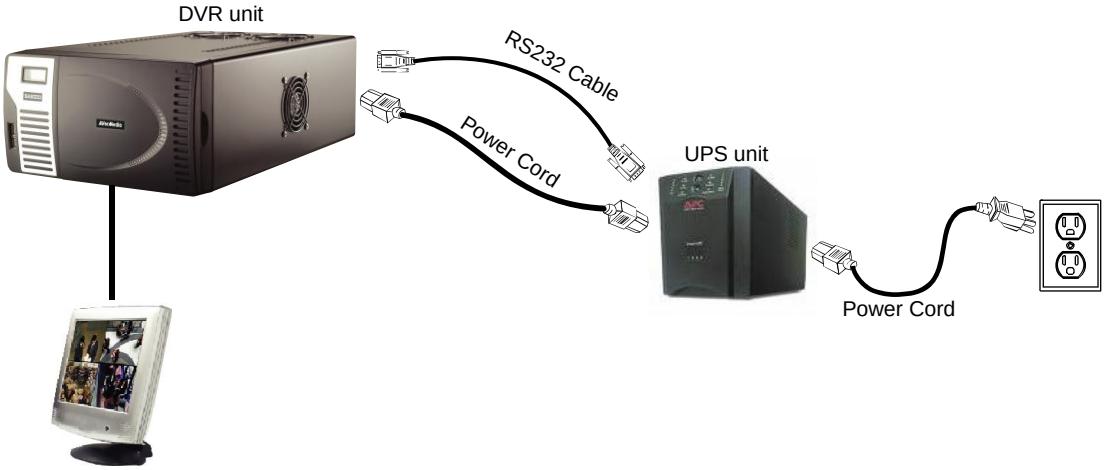
User can export the POS database to another save location or storage device. Click ... to change the save path. Mark **Remove POS data after** the POS data will be delete from DVR hard disk on the day that user has setup. Also, **mark Move to:** user can save the POS data to another folder on DVR when the POS data is removing. Click ... to set a storage path.



3.1.2 UPS Connection

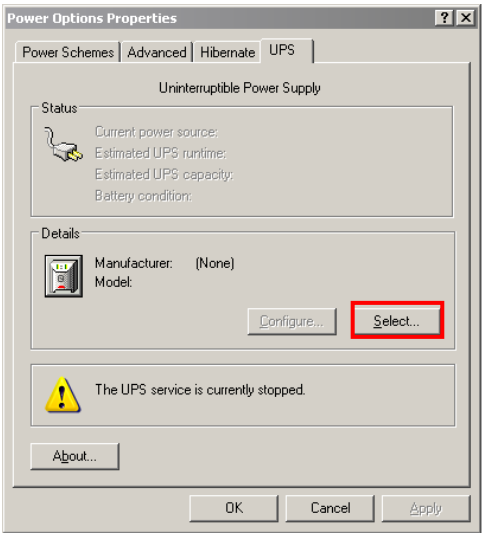
Follow the below steps to connect the UPS to DVR system.

1. Refer to the below figure to connect the UPS with DVR unit.

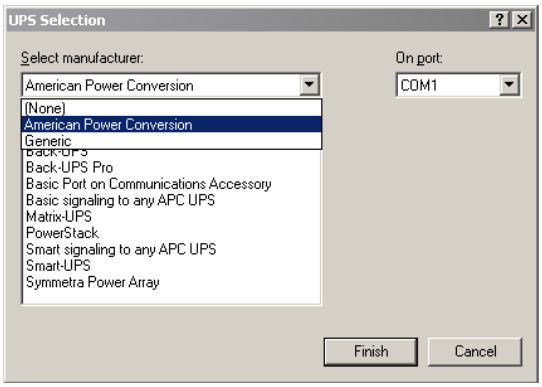


2. Power on the DVR unit and UPS unit.
3. Press F8 to switch to Controls menu mode.

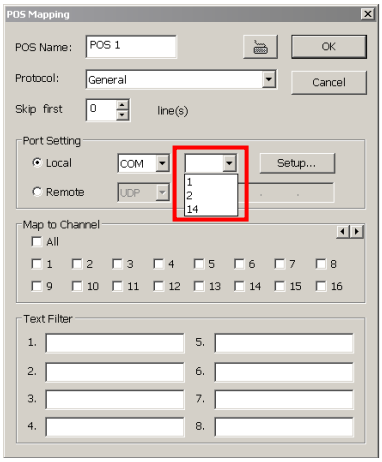
4. Click **Power Management**
5. In Power Options Properties dialog, click **Select…**



6. Select the brand, model and com port of UPS unit. And then, click **Finish**.



To check the com port number, go to **DVR application** → **Setup** → **System** → **POS Advance** → **Add** → **Port Setting** → **Local COM**



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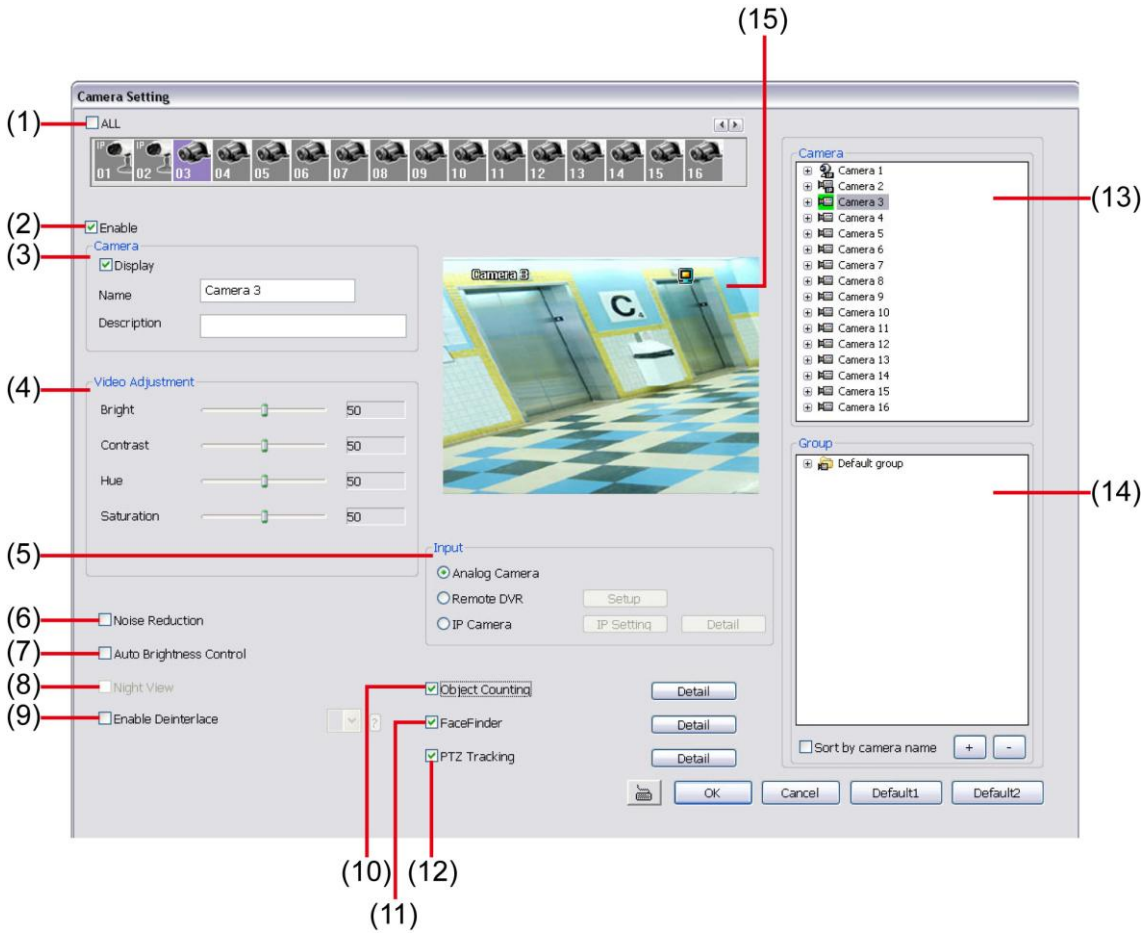
7. Click **Apply** to check if the UPS setting is correct.
8. And then, click **OK** to complete the UPS setting.
9. User also need to enable UPS and set the capacity percentage level for shutdown in the DVR application(see also (11) UPS (Uninterruptible Power Supply in System Setup).

3.2 Camera Setting

In the Camera Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default1/ Default2** to revert back to original factory setting.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected. The camera icon will be different that depends on the camera type user selected.

IP camera icon

Analog camera icon

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Name**
  Change the camera name
- **Description**
  Add a short comment

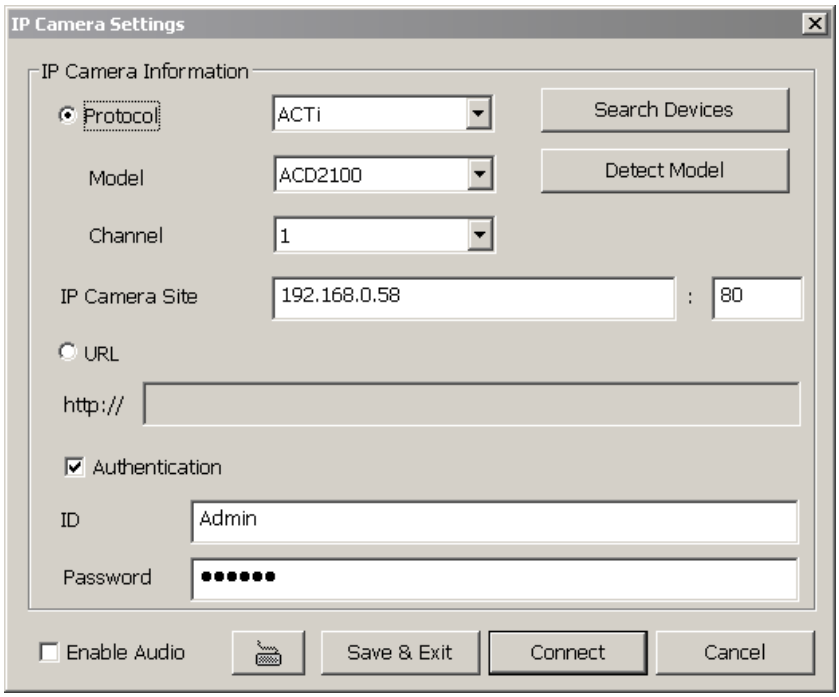
(4) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the selected camera.

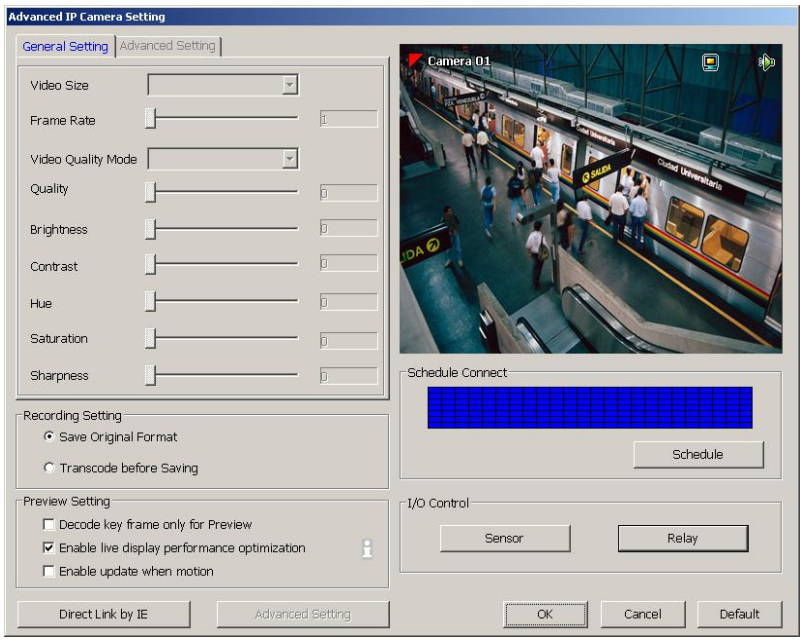
(5) Input

Select the type of video camera input you are using.

- **Analog Camera**
  The video source is coming directly from camera that is connected to the DVR.
- **Remote DVR**
  The video source is coming from another DVR server. In the Remote DVR dialog box, enter the server IP, port number, user ID, password and select the camera number. If you are not sure of the server IP and port, please check the DVR server IP address in Network setting.
- **IP Camera**
  The video source is coming from Network camera or IP camera. Click **Setup** to enter the IP Camera Settings windows. In the IP Camera Settings dialog box, select to connect using Protocol or URL and then enter the required info. If the IP camera IP address is available, enter the IP address at **IP Camera Site** column. Or User can click **Search Device** to find the selected protocol of camera on the LAN network. If user is not sure the camera is which model, click **Detect Model** to find the correct model of camera. If it requires user identification, enable **Authentication** check box and enter **ID** and **Password**. To enable audio, click **Enable Audio** check box. If you are not sure of the Protocol or URL info, please refer to the IP camera manual or contact your IP camera local distributor. Click **Save & Exit** to save the setting and leave the setup windows. Click **OK** to save the setting but not exit the setup windows. To cancel the setting, click **Cancel**.



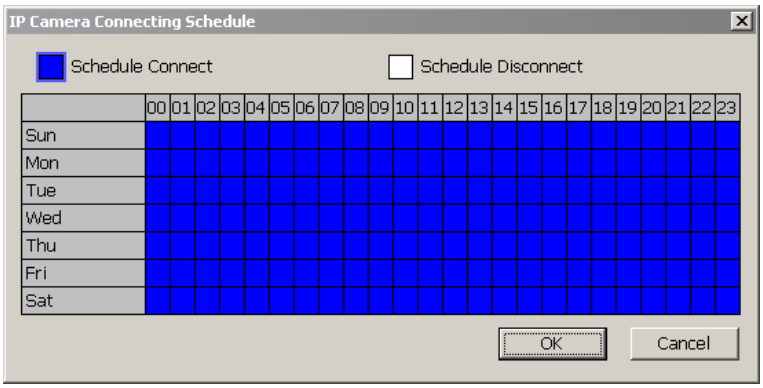
  In Camera Setting interface, click **Detail** to configure more parameters of the IP camera. Click **OK** to save the configuration and exit the setup windows. To reset the configuration back to factory value, click **Default**.


Advanced IP Camera Setting
General Setting
Advanced Setting
Video Size
Frame Rate
Video Quality Mode
Quality
Brightness
Contrast
Hue
Saturation
Sharpness
Camera 01
Schedule Connect
Schedule
Recording Setting
Save Original Format
Transcode before Saving
I/O Control
Sensor
Relay
Preview Setting
Decode key frame only for Preview
Enable live display performance optimization
Enable update when motion
Direct Link by IE
Advanced Setting
OK
Cancel
Default

User can select **Video size**, **Frame rate**, **Video** and **Quality Mode** of camera. And scroll the bar to adjust the **Quality**, **Brightness**, **Contrast**, **Hue**, **Saturation**, and **Sharpness** of the camera.

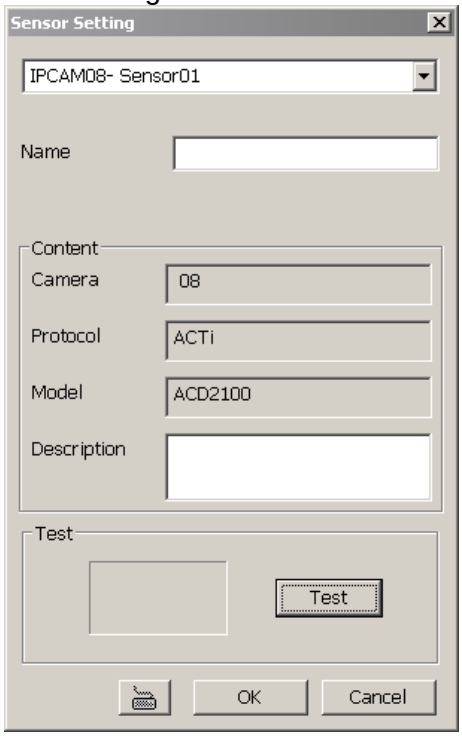
- **Recording Setting**
  - **Save Original Format:** Save the video that is compressed by IP camera's compress mode.
  - **Transcode by MPEG4 Encoder:** DVR system is decoding the video and compress video again by using MPEG4 encoder.
- **Preview Setting:** preview setting will relate to the **Save Original Format**.
  - **Decode key frame for Preview:** When previewing video, DVR system only shows key frame and one frame per second.
  - **Enable live display performance optimization:** The live video performance will be optimized while display.
  - **Enable update when motion:** The video will update only when compare the key frame has motion found, and then, the video will be displayed.
- **Schedule Connect**

  User can select a certain date and time to connect with IP camera. The blue block means connect with IP camera and the white block means disconnect with IP camera. Select the connection status (blue or white) and click the date and time block to set the connection schedule.



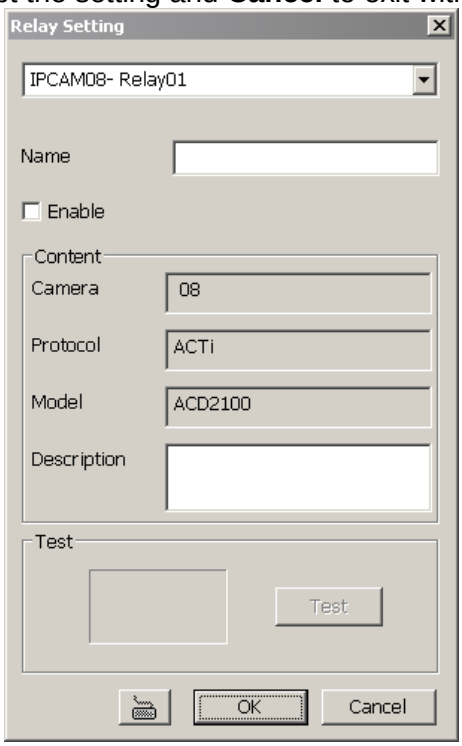
- **I/O Control:** To setup the sensor and relay devices that is installed on IP camera.
  - ✓ **Sensor Setting:** To setup sensor that is embedded on the camera.

1. Click the drop-down list and select the sensor ID number.
2. Enter sensor name in **Name** column
3. The system automatically detects the camera and input relates information. In the Content section, enter sensor description.
4. In the test section, click **Test** to check the sensor status. Red is high and Green is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



✓ **Relay Setting:** To setup relay device that is embedded on the camera.

1. Click the drop-down list and select the relay ID number.
2. Enter relay name in **Name** column
3. The DVR system automatically detects the camera and input relates information. In the Content section, enter relay description.
4. In the test section, click **Test** to trigger relay. Red is high and Green is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



- **Direct Link by IE**

  Using IE browser to connect to camera and view the real time video. Click **Direct Link by IE**，the IE browser will pop up and connect to camera. The video viewing interface will be varied by different brand of camera.

(6) Noise Reduction

Reduce undesirable video signal and improve the quality of the video.

Noise Reduction uses lots of CPU resource. Please use this feature only if it is really necessary.

(7) Auto Brightness Control

Automatically adjust the brightness.

(8) Night View

Automatically adjust the exposure to make the image more visible especially when the site is dark. You can only use this function when the Auto Brightness Control is enabled.

(9) Enable Deinterlace

To enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

(10) Object Counting

Select the two regions on the screen and the system will count the objects that appear from one selected region to another selected region (See also Chapter 4.2.1).

The DVR system only supports 4 channels for object counting.

(11) FaceFinder

To setup the capture of human face image from live or recorded video(See also Chapter 4.2.2).

(12) PTZ Tracking

Enable/disable object tracking of the PTZ camera (see also Chapter 4.2.3)

The PTZ tracking only available for the PTZ/IP PTZ camera.

(13) Camera list

List all available cameras for grouping. User can drag the camera to **(15) Video screen** to view camera live video.

(14) Group

User can create several camera groups for managing purpose. All cameras can be group into several different groups (see also Chapter 4.2.4).

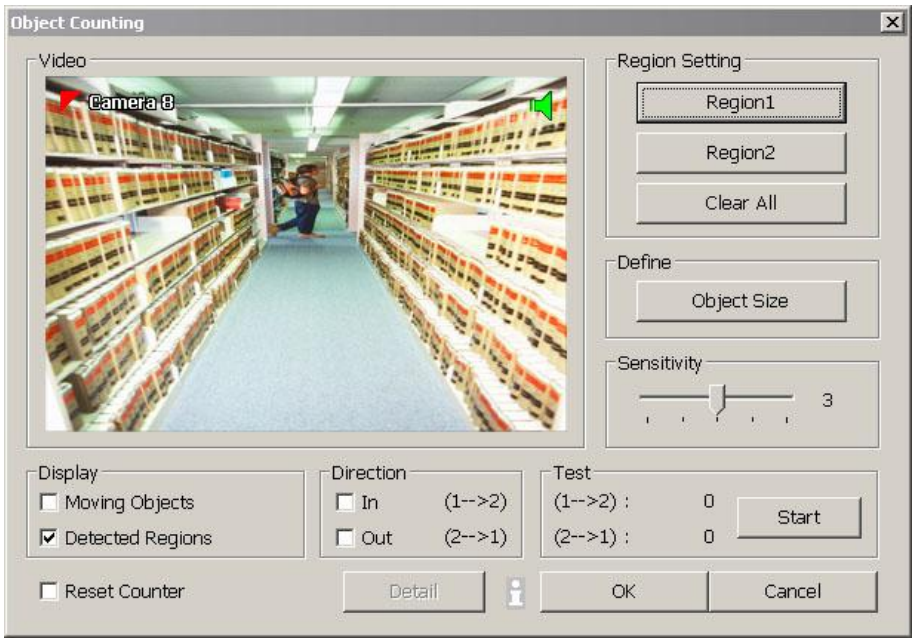
(15) Video Screen

Display the video of the selected camera.

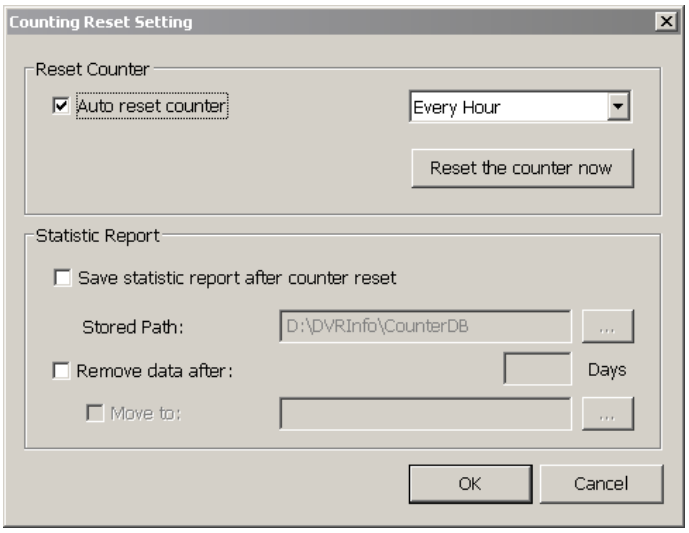
3.2.1 Setup the Object Counting

The DVR system only supports 2 channels for object counting.

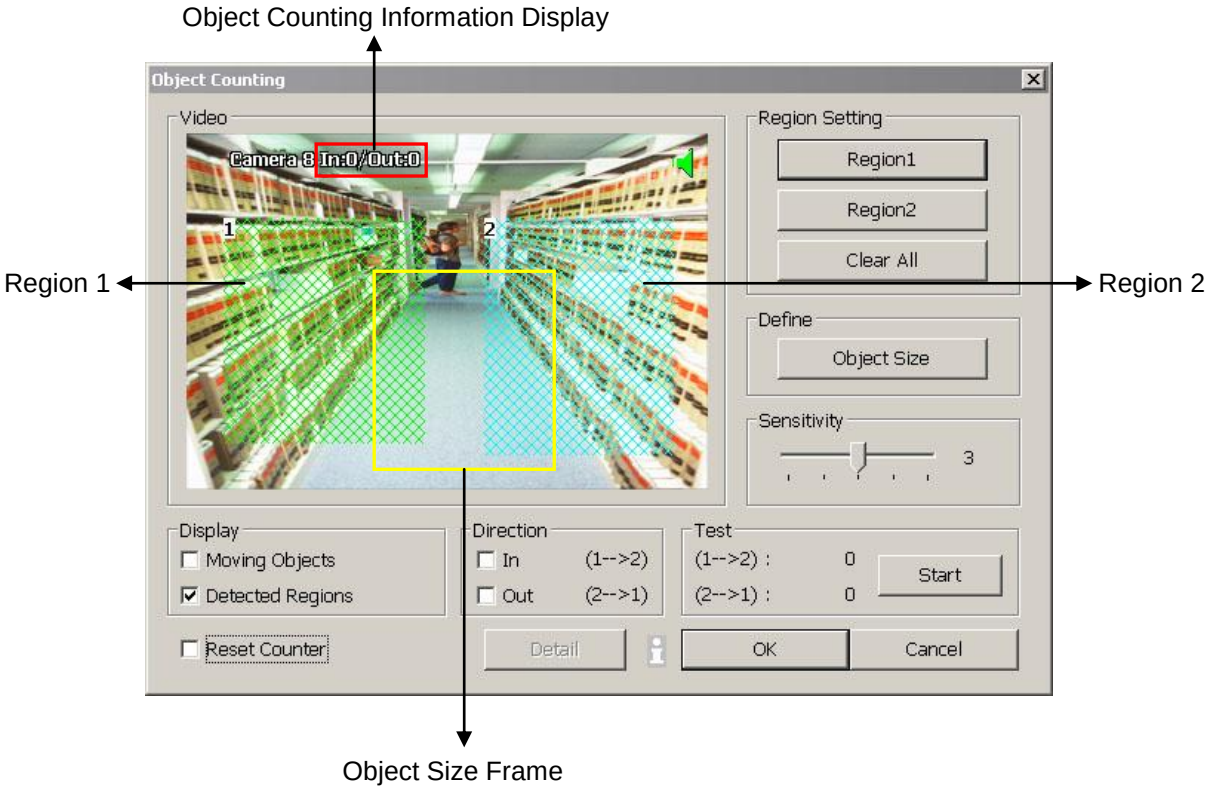
1. Click **Detail** to enter the object counting setup window.



2. Enable **Detected Regions** in **Display** section. This enables the object counting information show on the screen. **Moving Object** will enable the object size frame to show on the screen.
3. Click **Region1** and press left button of mouse and drag the area that user wants the object to be counted. And then, click **Region2** and drag another area that user wants the object to be counted, too. Those selected regions will mark in different color. The system will count the objects that move between the selected regions.
4. Click **Object size** to define the detected object dimensions. Press left button of mouse and drag on the screen. To see the object size frame on screen, enable **Moving Object** in Display section.
5. Adjust the sensitive of object detecting.
6. To test the setting, mark the **Directions (In/Out)** want to be test and click **Start**. The testing result will show in Test section.
7. Enable **Reset Counter** to manual or auto reset counter.
   - ✓ **Reset Counter**
     - **Auto reset counter:** Select the counter reset by every hour, every 12 hours, or every day automatically.
     - **Reset the counter now:** reset counter manually.
   - ✓ **Statistic Report**
     - **Save statistic report after counter reset:** Enable to save a counter statistic report after counter has been reset. Click ... to change the **Stored Path**.
     - **Remove data after:** Set a time period to delete the counter data from system hard disk.
     - **Move to:** Move the counter data to the save location that has been setup by user.



8. Click **OK** to save the setting. Click **Cancel** to leave the setup window without saving.
9. The object counting information will be display on the screen of upper part.



3.2.2 To Setup the FaceFinder

To setup the human face detection and capturing from live and recorded video for security issue. Click **Detail** to enter the FaceFinder setup window. To set the value back to default, click **Default** button.

- The face detection angle is around 30 ~ 45 degrees for both side of face and 25 ~ 30 degrees for look up and down of face.
- It is to recommend that user install the camera in the position of light comes in for better face detection result.

- **Save Data into Object index:** Mark to enable face detecting and capturing face image to display on face object log. The default is enabled when the FaceFinder is enabled.
- **Advanced Search(Include Human Eye Detection):** Beside face recognition, the system will also focus the detection on eyes of face.
- **Search Region:** User can select condition of face detection and setup face detects area.
  - **Detect Motion Object:** Only when the human face is moved, the system will detect and the face will be captured.
  - **Define Select Region:** Setup the face detects area. The system will only detect the face in the selected area. On the preview screen, use mouse to drag the area that user wants to search. User should see the blue frame on the preview screen of FaceFinder setup window. User can select multiple areas for detection. To clear the selected area, right click the mouse button and drag the selected area to clear. Or, click **Clear** to clear all selected areas.
- **Detection Sensitivity:** To set the sensitivity level of face detection. More higher is more easily to detect the difference of the face.
- **Minimal Face Size Level:** To set the face detection of minimal size. The system will only detect the face size is equal or bigger than the minimal face size. User should see a green frame on the preview screen of FaceFinder setup window.
- **Control Setting of External Device:** Set the conditions of the face detection that is trigger by outside device such as sensor, relay device.
  - **Activate FaceFinder By External Device:** Mark to enable trigger condition.
  - **Start Message:** Set the sensor level that will trigger the face detection. The default is high.
  - **Stop Message:** Set the sensor level that will reset the condition of face detection. The default is low.
  - **Reaction Device:** Set the activate level of relay device. When the face detects condition meets the condition in **Trigger Condition**, the relay will send out the signal and the system will send out the face object log. The log can be viewed in **Face Object Log**.
  - **Trigger Condition:** Set the condition for activating relay device to send out the log to DVR system. Select the time (second) and times (the number of face has been detected) from drag down list.
  - **Reset Device Status After:** Set the time period to reset activate device back to normal status. It works

only when the activate status is set to trigger.

After set up, click **Start Test** to test the configure result. When the system is detecting face, the red frame will show up on the screen. The test result will display in Face log List window as below figure shown:

3.2.3 Setup PTZ Tracking

PTZ tracking allows user to setup a select range for PTZ camera to track the object automatically when object is out of selected rage.

The PTZ tracking will be available when the camera is enabled PTZ function.

1. User need to enable the PTZ function of the camera if the camera is a PTZ/IP PTZ camera.(see also Chapter 3.13)
2. Click **Detail** from the Camera Setting windows.
3. Configure the following selections to complete the PTZ tracking.

(1) Show Trigger Line in Live Video: Enable/disable the tracking line on the preview screen.

(2) Left Trigger Line*(red line)*: Set the left edge of the tracking range. If the object is out of the range edge, the camera will automatically move to track the object.

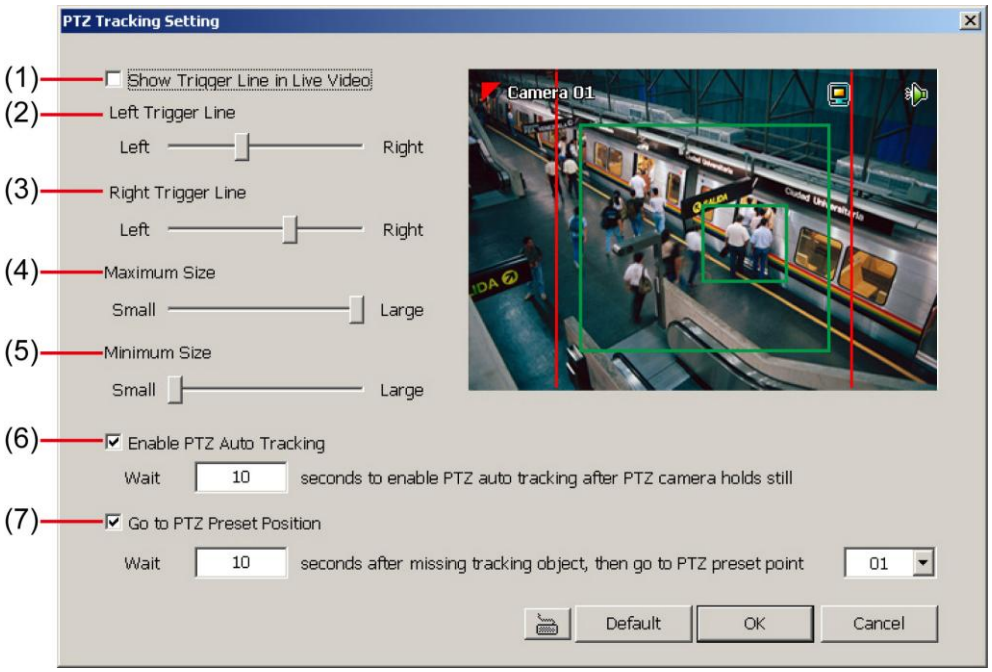
(3) Right Trigger Line*(red line)*: Set the right edge of the tracking range. If the object is out of the range edge, the camera will automatically move to track the object.

(4) Maximum Size(green frame): Set the maximum size of the object for detection.

(5) Minimum Size(green frame): Set the minimum size of the object for detection.

(6) Enable PTZ Auto Tracking: To restore PTZ tracking function after the camera has been manually control. The PTZ tracking will stop function when user has operated the PTZ camera manually. Therefore, user can enable this option to make sure the PTZ tracking will be restored after manually control of the PTZ camera.

(7) Go to PTZ Preset Position: To move the PTZ camera back to the selected preset position after PTZ camera tracking the object and the object is missing or out of the camera view.



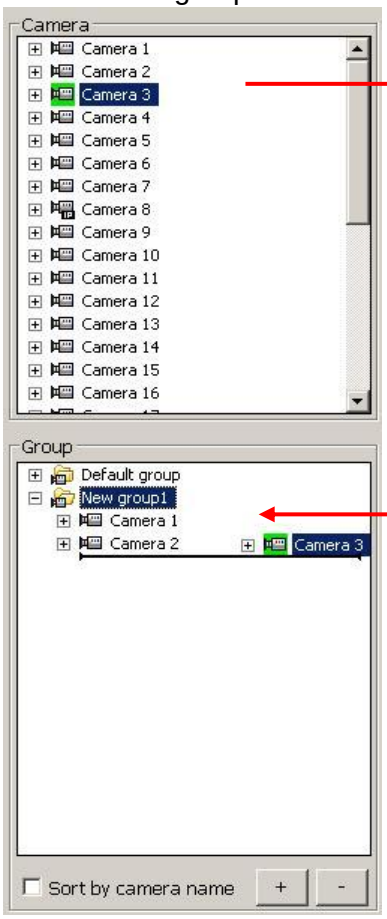
4. Click **OK** to complete the setting.
5. When the PTZ tracking has been setup, user should see the PTZ tracking icon ( ) on the preview screen.

3.2.4 Create a Camera Group

Follow the below steps to create a camera group. The maximum of group number is 64. The default group can be deleted and modified.

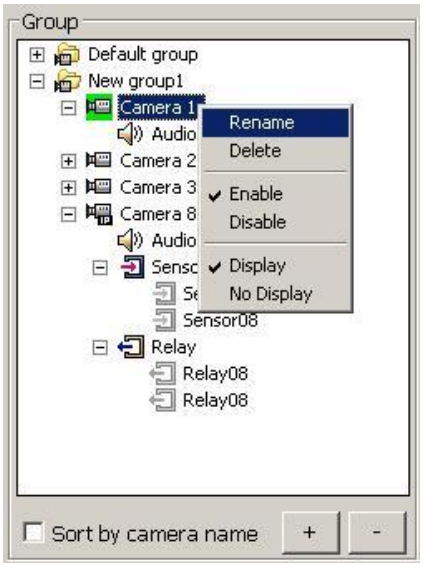
1. Click + to add a new group.

2. Right-click on group to rename the group name.
3. Drag the camera from Camera list section to the group.



Select and drag the camera to the group

4. Right-click the camera can rename, delete, display/no display video of camera, and enable/disable camera.
5. To add another group, do the step 1 to 4 again.
6. To delete the group, click + or right-click the group and select delete.
7. Mark **sort by camera nam**e to display group by name order.
8. Click **+** of the group to extend the group. Click **+** of the camera to view all devices that is connected with camera.

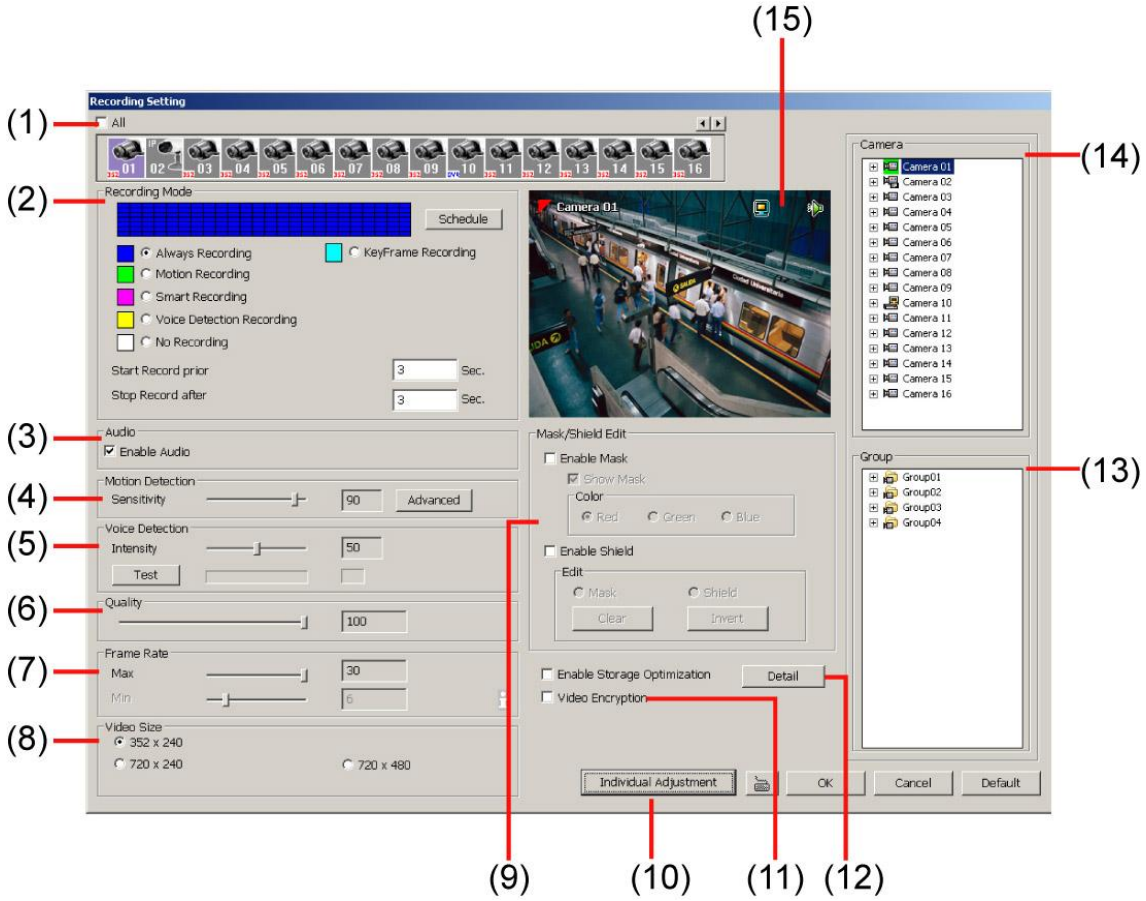


9. User can easy to view and manage the camera group in preview/advanced mode by click camera tree icon (see also Chapter 3.2(11) Camera Group Tree). From camera group tree, user can enable/disable, display/un-display, and rename the camera and enable/disable the audio of the camera.

To manage the camera group tree in preview/advanced mode, user need to be enabled the **Group Tree Menu** control right in account setting(see also Chapter 4.9 User Setting)

3.3 Recording Setting

In the Recording dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Camera Icons

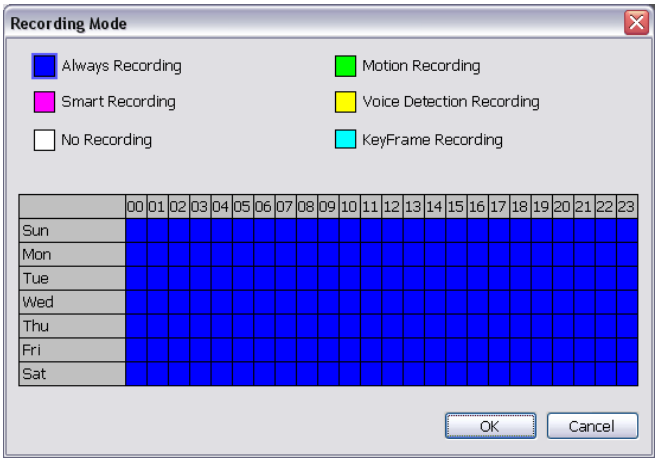
Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected. The camera icon will be different that depends on the camera type.

IP camera icon

Analog camera icon

(2) Recording Mode

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks.



When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- **Always Recording**

  Record the video from the selected camera and save it to the designated storage path (see also Chapter 4.1 #1).

- **Motion Recording**

  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and Stop **Record After settings**.

- **Smart Recording**

  Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting Set the maximum and minimum frame rate setting in (7) Frame Rate section.

- **Voice Detecting Recording**

  DVR system will record the sound when the voice exceeds the intensity value in Voice Detection setting.

- **No Recording**

  The system won't do any recording.

- **KeyFrame Recording**

  Only record one frame per second.

(3) Enable Audio

Select to assign the audio channel of the selected camera. You can only assign one audio channel to one camera source. This way you can record both audio and video.

An Audio I/O card is required to use this function.

(4) Motion Detection

Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen. Click **Advanced** button to select the area for motion detection. Click **Region 1/2/3** button, and then, click-and-drag an area on camera screen fro motion detect. To adjust motion detect sensitive, scroll the **Sensitivity 1/2/3** bar. Click **OK** to save and exit the setting window. To reset all setting, click **Default**.

(5) Voice Detection

Adjust the intensity of the audio detector. The system detects sound when it exceeds the intensity value.

(6) Quality

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

(7) Frame Rate

Set the maximum and minimum number of frames to be recorded during motion and motionless state. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

(8) Video Size

Select the size of the video and click the ⊙ button. The higher the size, the larger the file it create. You can also activate the **Enable Deinterlace** to enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

(9) Mask/Shield Edit

Mask, mark an area on the screen to disregards the motion in the marked area and to only monitor outside the marked area. As for the Shield, it covers an area on the screen and the covered area would not be visible on the screen and recorded. (see also Chapter 4.3.1 and 4.3.2)

(10) Individual Adjustment

To adjust recording frame rate of each channel. **Max available frames** are total frames that can be used. **Used frames** are the frames that have been used. Select the **video size** and scroll the bar to adjust **frame rate** of camera. Click **OK** to save the configuration. To cancel, click **Cancel**.

(11) Video Encryption

Enable/disable to encrypt the recorded video that way only the person who knows the password can clearly view the video playback. The file size would become 10 to 30% more. Enabling the Video Encryption check box, you will be prompted to enter the password and retype the password for confirmation. Make sure not to forget the password for you would not be able to decrypt the video without it.

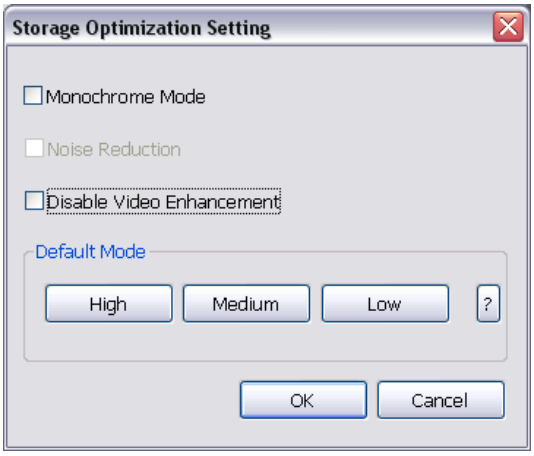
The symbol would appear on the upper right of the encrypted video screen. You may see the video during live recording. To decrypt the video, please refer to Chapter 4.3.3.

Video Encryption
Enter Password:
Confirm Password:
Show Password
Warning:
Kindly note down your password. It is not possible to decode video stream without valid password. Password once lost cannot be recovered.
OK
Cancel

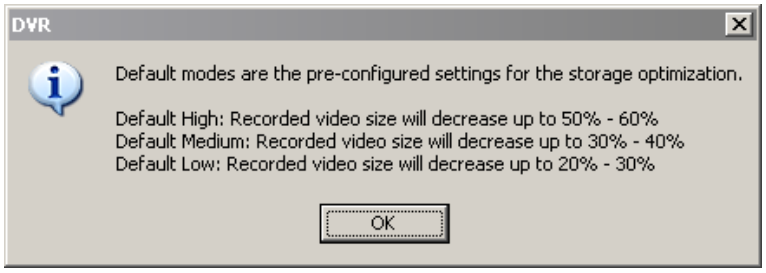
(12) Enable Storage Optimization

Enable/disable to save more storage space. Click **Detail** button to select the type of storage optimization.

- ✓ **Monochrome Mode:** The video will record in black and white.
- ✓ **Disable Video Enhancement:** To shutdown video enhancement function.



User also can select the Default Mode High/Medium/Low. Click **?** button to view default mode definition.


DVR
Default modes are the pre-configured settings for the storage optimization.
Default High: Recorded video size will decrease up to 50% - 60%
Default Medium: Recorded video size will decrease up to 30% - 40%
Default Low: Recorded video size will decrease up to 20% - 30%
OK

(13) Group

Click to view the camera group that user has been setup in **Camera setup (**see also Chapter 4.2.4).

(14) Camera

Click to view the camera live video on **(15) Video Screen**.

(15) Video Screen

Display the video of the selected camera.

3.3.1 To Mask/Shield an area on the screen

1. In the Mask/Shield Edit section, activate the **Enable Mask**/**Enable Shield** check box.
2. In the Edit section, select between Mask or Shield and click the ⊙ button.
3. Click and drag a frame on the **(15) Video Screen** to create Mask or Shield area.

SA7000H doesn't support shield function

3.3.2 To show and change the color of the Mask

1. Enable the **Show Mask** check box.
2. In the Color section, select the color and click ⊙button.

3.3.3 To Playback Encrypted Video

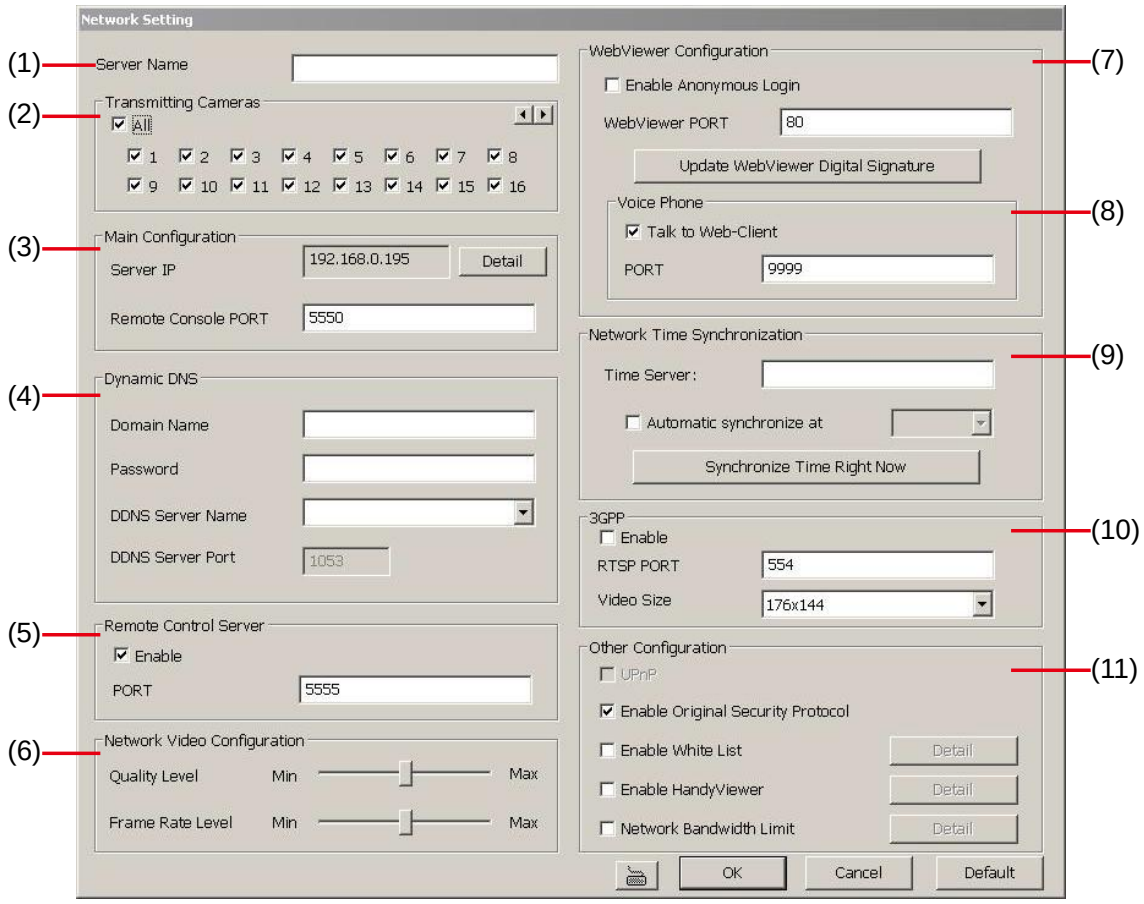
On Playback, Webcam, and Remote Console video screen, just click and enter the correct password to decrypt and playback the video.

To encrypt the recoded video back, click and enter a **WRONG** password.

It is important to encrypt the video again, to avoid unauthorized user viewing the video.

3.4 Network Setting

In the Network Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Server Name

Assign a name for the DVR unit. Letters of the alphabet and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebViewer, Remote Console, PDAViewer and HandyViewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Server IP

Set the Server IP and Remote Console Port number. The system will automatically detect your Server IP address. You need this when accessing DVR server from the remote location via internet.

(4) Dynamic DNS (Domain Name System)

For information about Dynamic DNS options see http://www.luxonvideo.com/quickstart201.php and scroll down to the DynDNS Section.

(5) Remote Control Server

Enable/disable remote control from remote application (ex. NVR-CMS). Enter the remote accessing port in **Port** column. The default value is 5555.

User also can manually run this function. To run, click **Start** > **Programs** > **DSS** > **Tool** > **Remote Control Server**. The remote control server icon appears on the taskbar when the remote control server is enabled. (also see Chapter 11)

(6) Network Video Configuration

Set up the video quality and frame rate for viewing and transmitting to the remote program. Scrolling adjust bar to set the **Quality level** and **FrameRate level**.

(7) WebViewer Configuration

Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password and **Talk to Web-Client** to use the 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature.

If the **Talk to Web-Client** is disabled, the person in the DVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated. (see also Chapter 7.1 #6).

Make sure that your WebViewer Digital Signature is updated yearly; else you won't be able to access the DVR server from the DVR WebViewer. To update/download your WebViewer Digital Signature, click **Update WebViewer Digital Signature**. Make sure your PC is connected to internet.

(8) Voice Phone

The **Talk to Web-Client** is to use the 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the DVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated. (see also Chapter 7.1 #6).

Make sure that your WebViewer Digital Signature is updated yearly; else you won't be able to access the DVR server from the DVR WebViewer. To update/download your WebViewer Digital Signature, click **Update WebViewer Digital Signature**. Make sure your PC is connected to internet.

(9) Network Time Synchronization

Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis. Or, user can click **Synchronize Time Right Now** to adjust time right away.

(10) 3GPP

Enable 3GPP that allows user to use browser on the mobile phone to view recorded video. Just enter the http:// DVR server IP address/3GPP on the browser of mobile phone, and then, user will receive the recorded video from DVR server. Fill the RTSP PORT for 3GPP connection. Select the video size for transmitting to user's browser on the mobile phone.

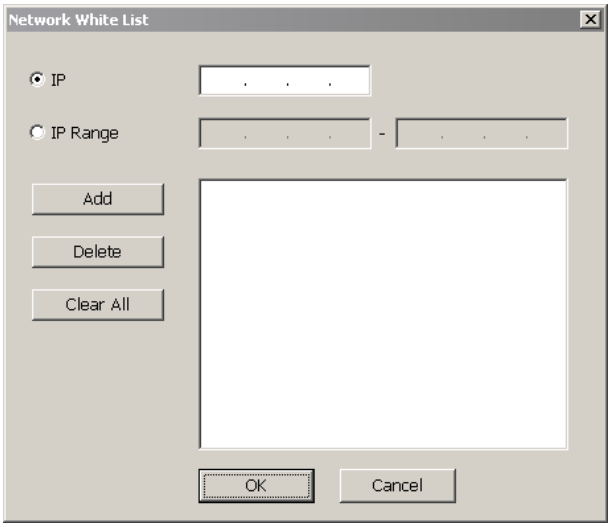
(11) Other Configuration

- **Enable Original Security Protocol**

  Enable DVR system to accept the connection from former version of remote access application. For example, if user uses CMS version 7.3 and connect to DVR server with version 7.7, and then, user has to enable this option to make it work. It is due to that DVR system has new security protocol and it's not compatible with old remote access software.

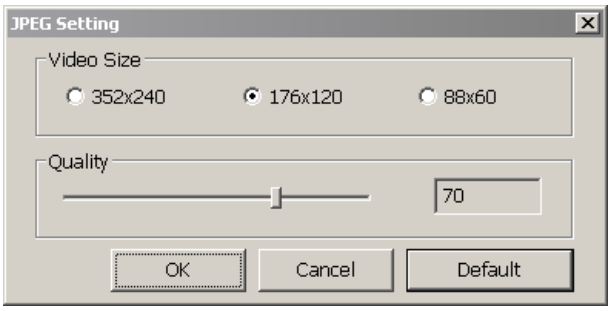
- **Enable White List**

  An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.



- **Enable HandyViewer**

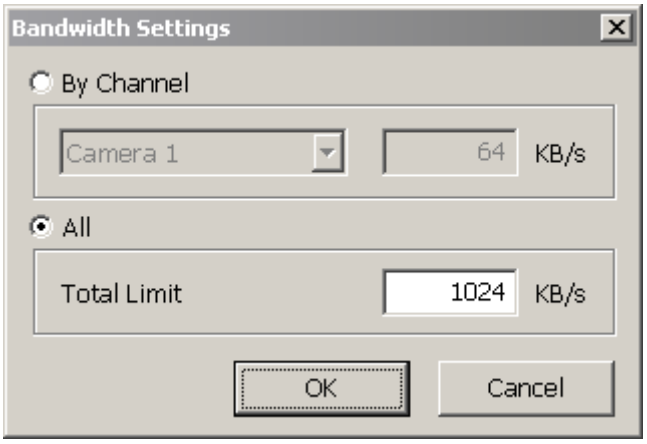
  Enable remote users to use a PDA or a mobile phone to access DVR server and select the video size and quality. (See also Chapter 7.5 and 7.6)



- **Network Bandwidth Limit**

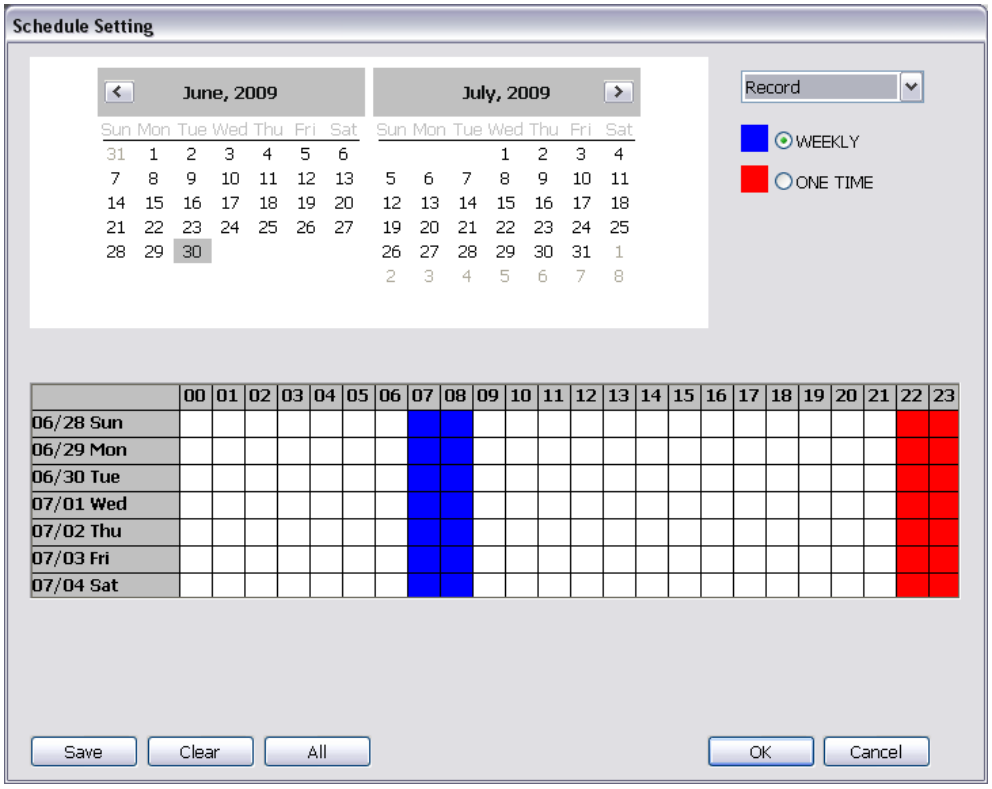
  By Channel: Set the network bandwidth by each channel.

  All: Set the total network bandwidth consumption limit.



3.5 Schedule Setting

Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



To Set the Schedule Setting:

1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**

     Activate all the cameras to start video recording at the set time based on the Recording setting (see also Chapter 4.3).
   - **Backup**

     Save another copy of all the data at the set time and specified backup path. DVR automatically updates and only backup the data that are not yet included in the archive. To assign backup path, click ...
     - ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
     - ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.

Make sure the backup folder and storage folder are not on the same drive.

   - **Enable Network**

     Activate DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
   - **Reboot**

     Restart the PC at the appointed time.
   - **Disable Alarm**

     Deactivate the alarm at the set time temporarily.
   - **Turn on Relay #**

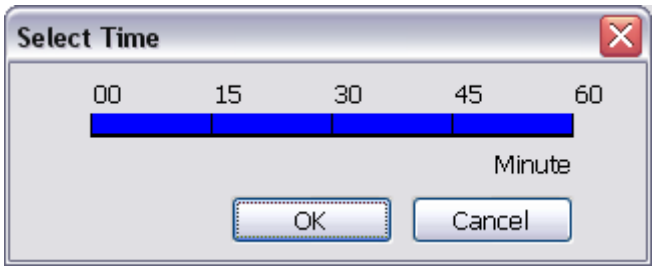
     Active the Relay at the set time. If there are no Relays are connected, Turn on Relay # function will

not display in drag down list. The Relay number will depend on how many Relays are connected.

3. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule (see also Chapter 4.5.1). Or click All to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

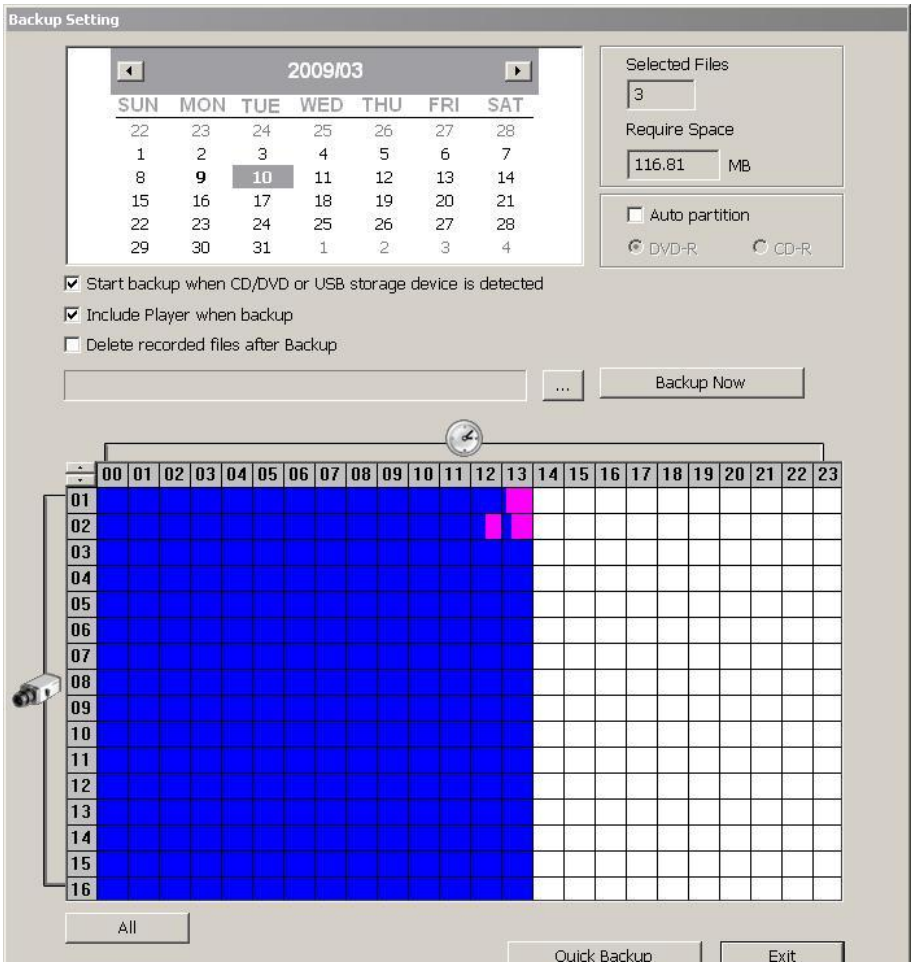
3.5.1 Set schedule at specific portion of time

1. **Right click** the colored blocks.
2. In the Select time dialog box, click to enable or disable the portion you want to set.
3. Click **OK** to accept the setting and **Cancel** to exit without saving the setting.



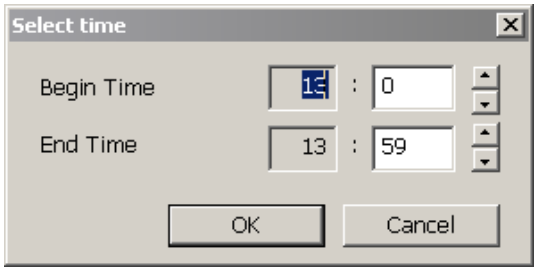
3.6 Backup Setting

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number. When you back up the file, you may find QLogViewer and Player application included in the backup folder (see also Chapter 5).


Backup Setting
2009/03
SUN MON TUE WED THU FRI SAT
Selected Files
3
Require Space
116.81
MB
Auto partition
DVD-R
CD-R
Start backup when CD/DVD or USB storage device is detected
Include Player when backup
Delete recorded files after Backup
...
Backup Now
00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16
All
Quick Backup
Exit

3.6.1 To Backup file

1. Select the date of the recorded file in the calendar you want to backup. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. If you want to set the specific time, right-click on the selected block. Then, set the time to start and end.



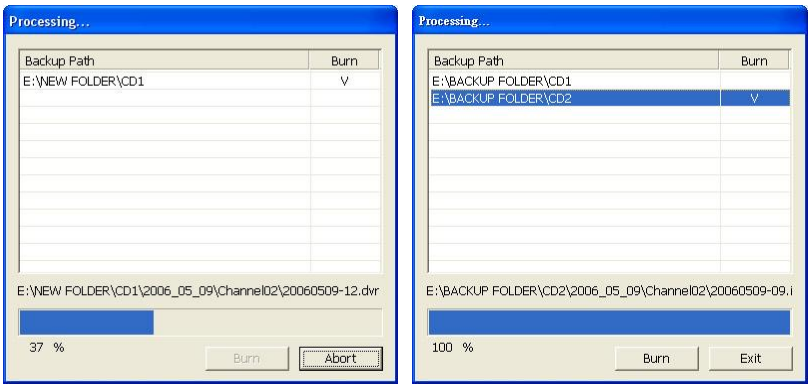
3. Check the information beside the calendar.

   Selected Files : Show the number of files selected.

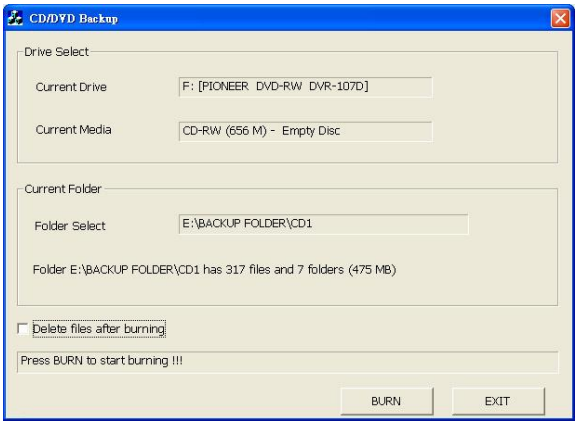
   Require Space : Show the total size of the selected file.

4. Enable Auto partition and select to divide the file size into DVD-R or CD-R. DVR automatically backup and divide the file sizes to facilitate burning into DVD or CD disc.
5. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.

6. Click ... to set the path on where to store the backup file.
7. Click Backup Now to start archiving the selected file.
8. In the Processing… dialog box, to stop archiving press **Abort**. When done, in the Backup Path list, shows the archived item. Select the item in the list and click **Burn**. Click **Exit** to end this procedure and burn it later.



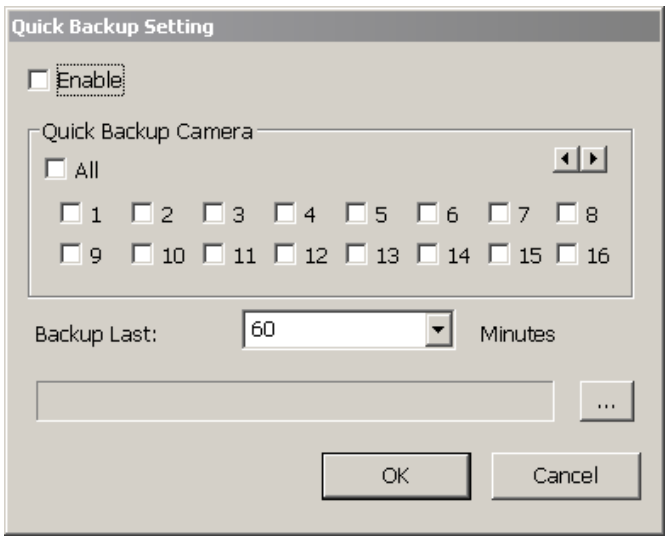
9. In CD/DVD Backup, enable/disable Delete file after burning check box to remove the archived file after burning. Click **Burn** to start and **Exit** to cancel this process.



3.6.2 Setup Quick Backup

Set a quick backup rule for user can pressing to execute backup instantly.

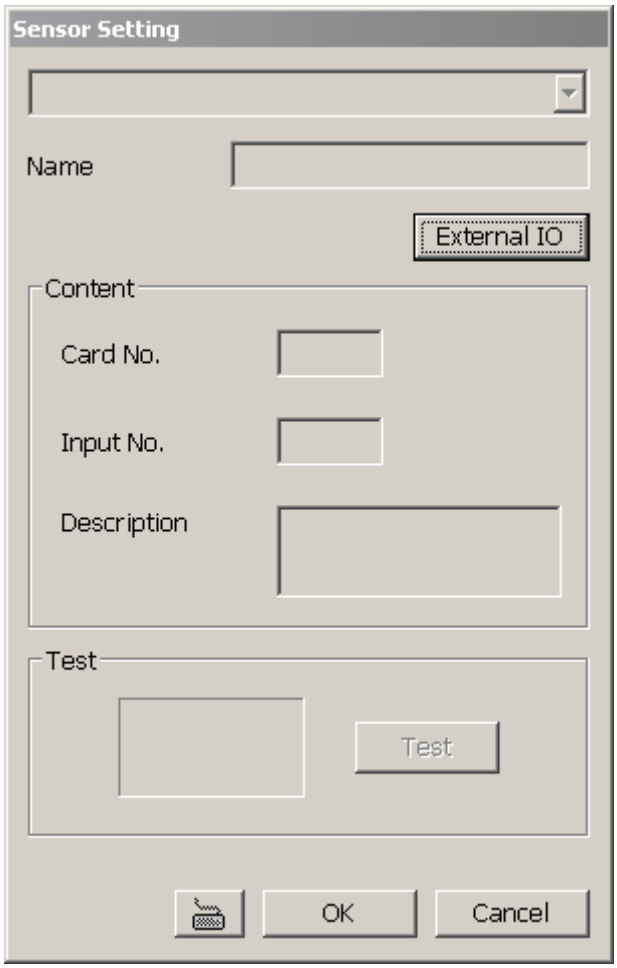
1. Click **Quick Backup**
2. In Quick Backup Setting, mark **Enable**
3. And then, select the channels that want to backup
4. **Backup Last:** Set the time before minutes to backup. For example: time before 60 minutes means backup the recorded file from now backward 60 minutes. Present time is 13:00, the system will backup start from 12:00 when press quick backup button



3.7 Sensor Setting

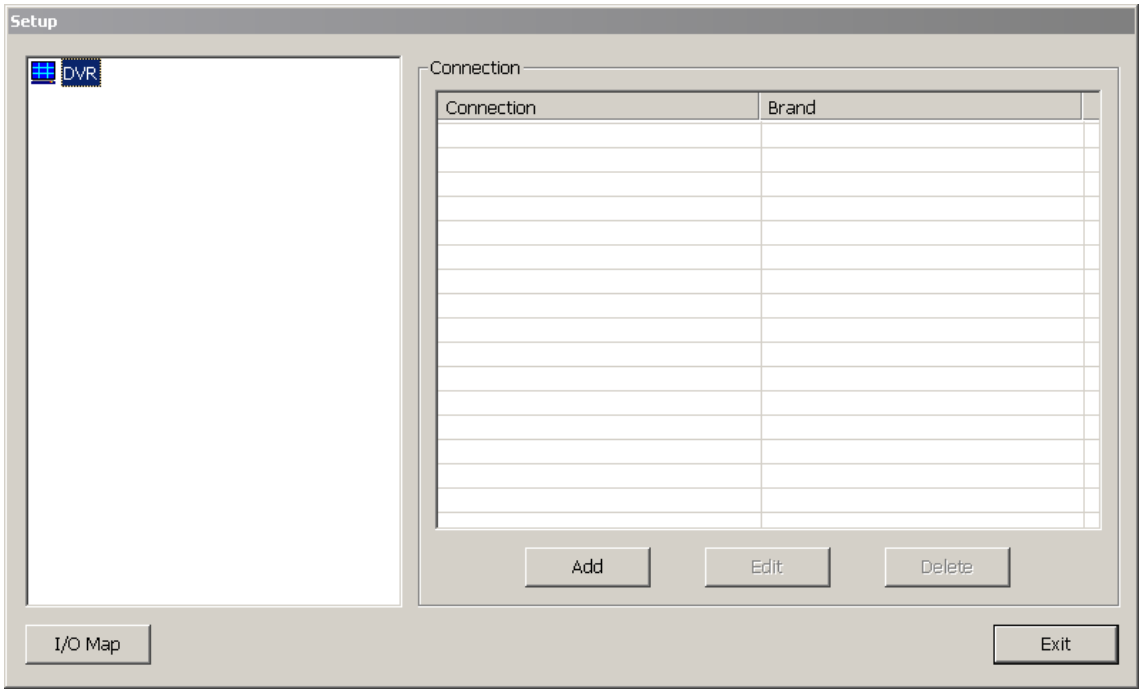
The I/O device must be installed to use this function.

1. Click the drop-down list and select the sensor ID number.
2. Enter sensor name.
3. Click **External IO** to configure external I/O device if it is available(see also Chapter 4.7.1)
4. The system automatically detects the sensor and input relates information. In the Content section, enter sensor description.
5. In the test section, click **Test** to check the sensor status. Red is high and Green is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

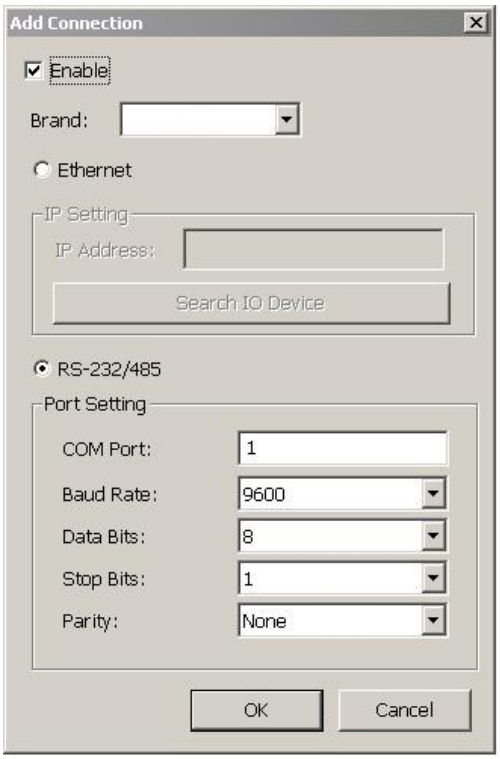


3.7.1 To Setup External I/O Box

The DVR system can connect the external I/O box for more installed of I/O devices.



1. Click **Add**.
2. Mark **Enable** box to enable this external I/O box.
3. Select the Brand of external I/O box from drag down list.
4. In **Port Setting**, different brand of external I/O box may have different port parameters. Please refer to the external I/O box's user manual for port setting information. Using the default value if user uses External I/O box.
5. Click **OK** to save the setting.
6. To add more than one external I/O box, click **Add** and follow the above step 2~4.



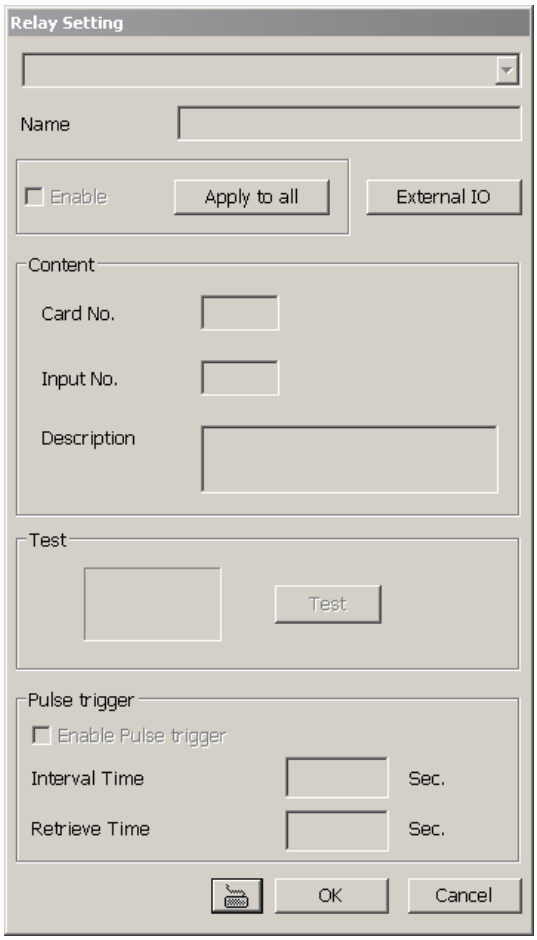
7. In External I/O box setup dialog, user will see all added External I/O. Click added External I/O box and click **Add** to scan the connected relays and sensors.
8. In **Add Module** windows, click **Scan** to scan the connected relays and sensors on the External I/O box.
9. All connected relays and sensors will be listed. User can click radio button to control relays' status. And then, click **OK** to save the setting and click **Cancel** to exit and without saving.

10. All connected External I/O box and their modules will be listed as tree topology in External I/O Setup windows.
11. To view the all I/O devices information, click **I/O Map**.

3.8 Relay Setting

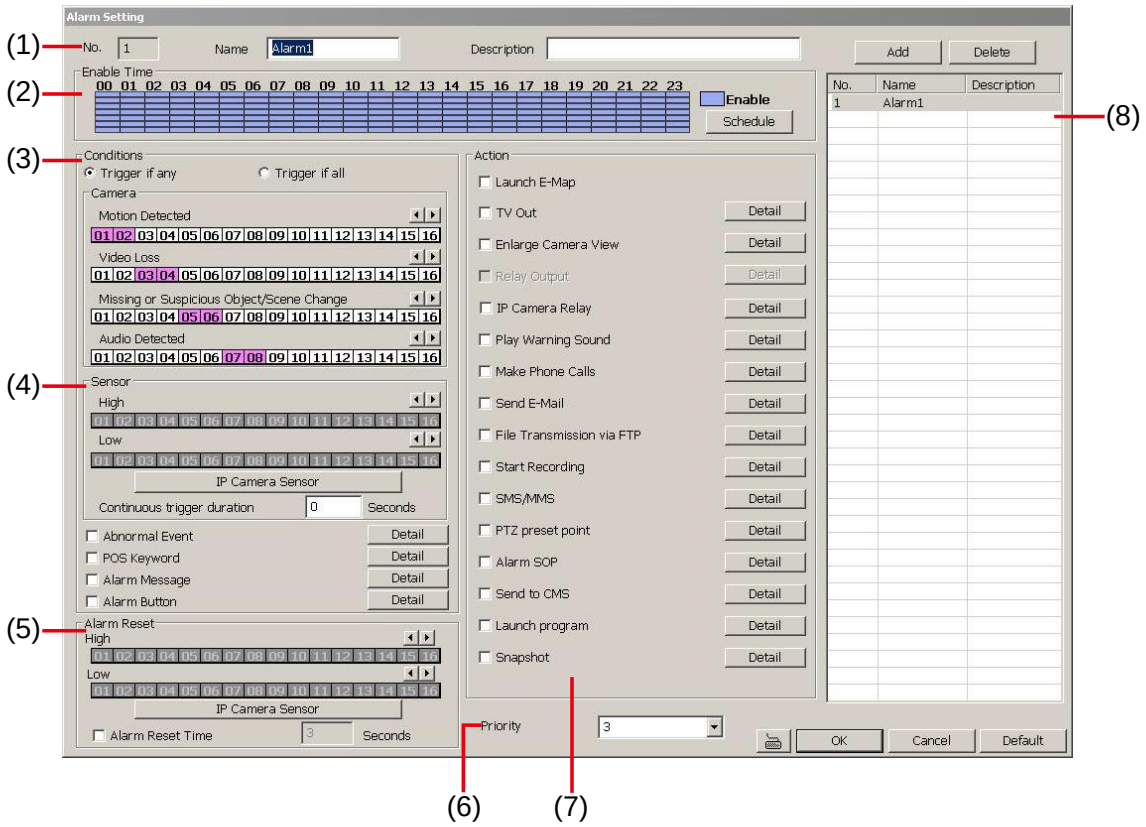
The I/O device must be installed to use this function.

1. Click the drop-down list and select the relay ID number.
2. Mark **Enable** to enable the selected relay.
3. Click **External IO** to configure external I/O device if it is available (see also Chapter 4.7.1). When external I/O is set and it will be available in drag down list for selecting.
4. The system automatically detects the card and input number. In the Content section, enter relay description.
5. In the test section, click **Test** to trigger relay. **Red** is high and **Green** is low.
6. Mark **Enable Pulse trigger** the relay will be triggered depends setting of **Interval Time** and **Retrieve Time**. **Interval Time** is a time gap for the relay will be triggered, for example: the relay will be triggered every 3 seconds if interval time is set to 3 seconds. **Retrieve Time** is the time that relay is staying in trigger status, for example: when relay has been triggered and it will continuous in trigger status for 2 second if retrieve time is set to 2 seconds.
7. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



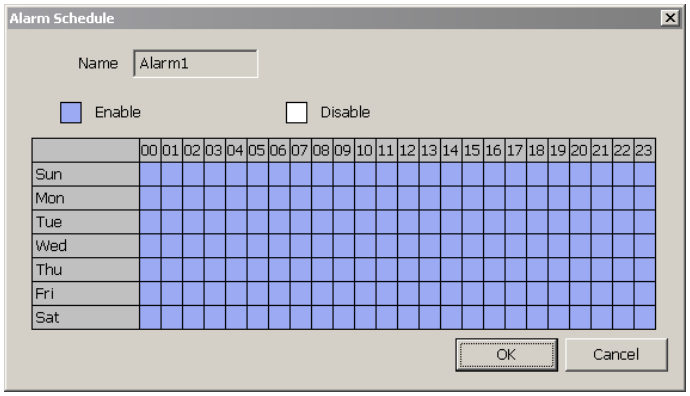
3.9 Alarm Setting

In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory setting.

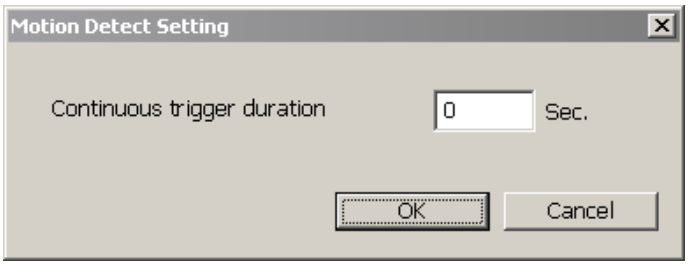


To set the Alarm Setting:

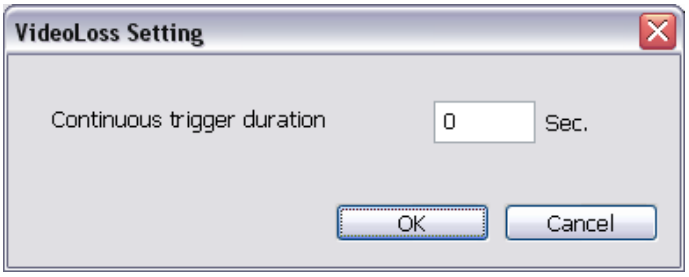
1. Click **Add** to insert and set a new alarm setting. Click the items in the **(8) Alarm Setting List**, if you want to modify the alarm setting.
2. In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Click **Schedule** to select the time and date that you want to activate or deactivate the alarm function. Select **Enable** or **Disable** and click the block that user want to activate or deactivate the alarm function.



4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
   - **Motion Detected:** select and click on the camera number (01 to 32) to set the condition for the system to alarm. Right click on the camera number to setup the **Continuous trigger duration** of Motion detected. Enter the time period for system to send out the alarm when motion has continuous detected for a period.



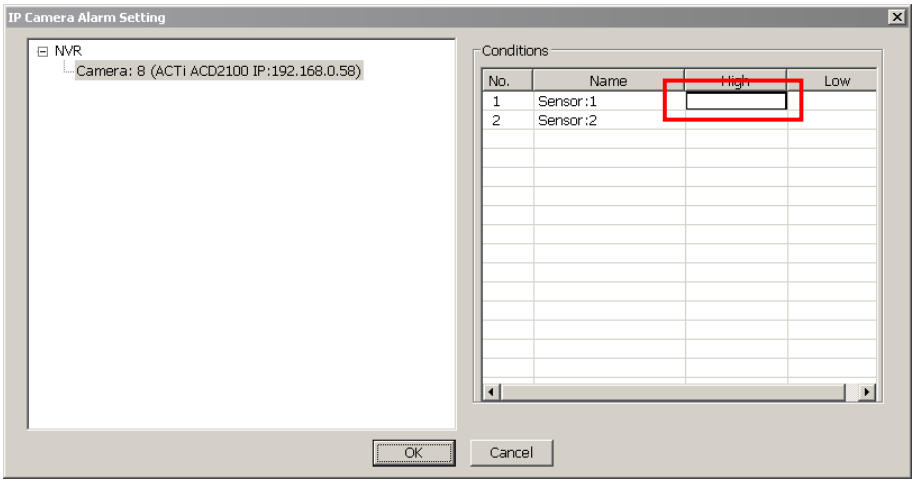
- In **Video Loss**, click the camera number (01 to 32) to set the alarm condition when video is lost. Right click on the camera number to setup the **Continuous trigger duration** of Video Loss. Enter the time period for system to send out the alarm when video loss has continuous detected for a period.



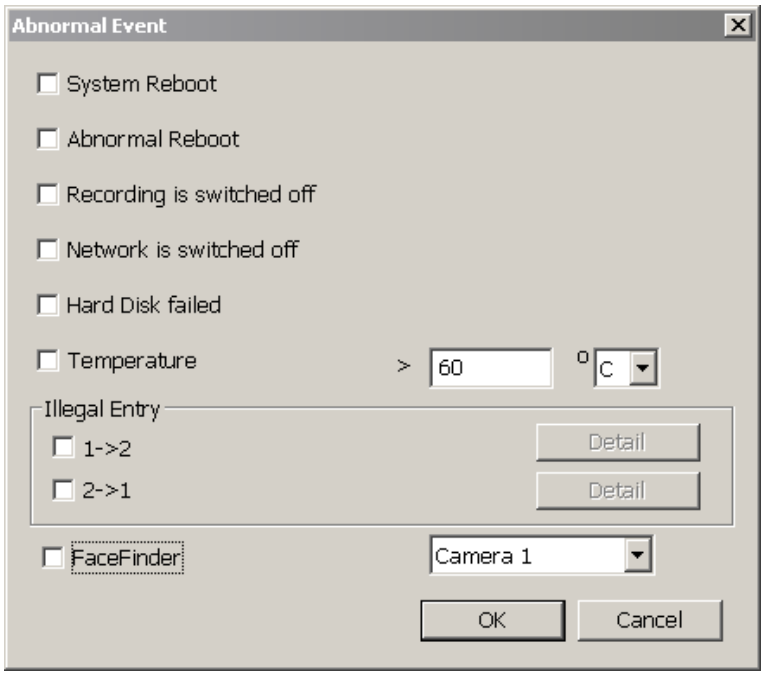
- In **Missing and Suspicious Object/Scene Change**, click the camera number (01 to 32)and select the certain object on the screen (right click on camera number for detailed setting), and when the certain object is missing or doubtful, the system will alarm.(see also Chapter 4.9.12)
- In **Audio Detect**, click the camera number (01 to 32) to the system to alarm when detect the abnormal audio.

5. In **(4) Sensor**, select and click on the sensor number (01 to 32) to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low (see Chapter 4.7 step #4).

   Click **IP Camera Sensor** to configure IP camera's sensor condition. To set the sensor condition for the system to alarm, click **High** or **Low** column. The column with a circle means is selected.

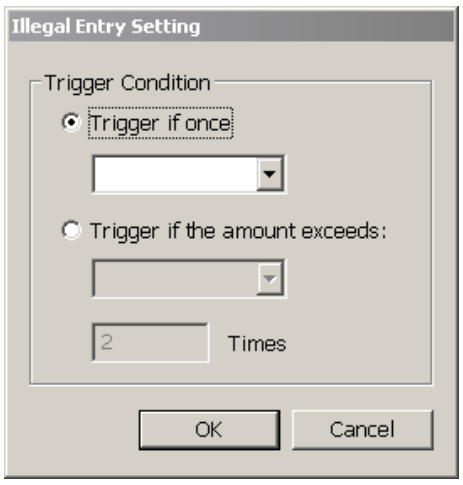


- **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
- **Abnormal Event:** Enable/disable to set the condition of the event for system to alarm.



- **System Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
- **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
- **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
- **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk can't work normally, the system will send out the alarm message.
- **Temperature:** set a temperature limited of system for system to alarm. When DVR system temperature is over the temperature limited, the system will send out the alarm.
- **Illegal Entry:** any objects move between selected regions which user has set up in **Object Counting** section (see Chapter 4.2.1), the system will send out the alarm. Select the entry (object moves from region 1 to 2 or from region 2 to 1) and and click the **Detail** to select the camera and the times for system alarm.
  - ✓ **Trigger if once:** Send out the alarm when the selected camera match the illegal entry has selected.
  - ✓ **Trigger if the amount exceeds:** Send out the alarm when the selected camera and illegal entry times match the illegal entry has selected.

Only the camera has been setup in **Object Counting** will be available for selecting in **Illegal Entry**.

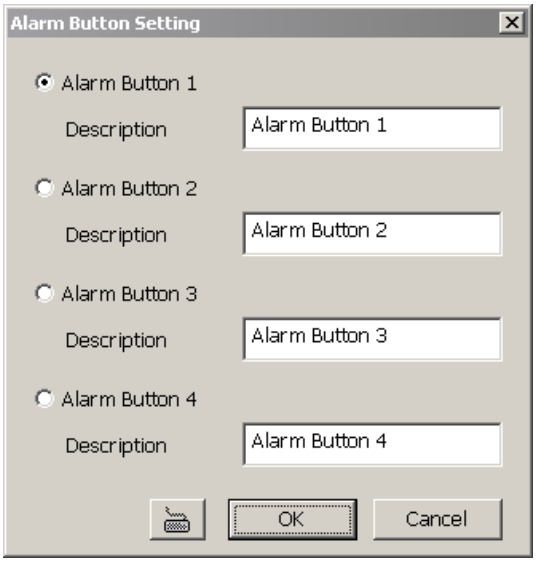


- **FaceFinder:** Enable to send out the alarm when the selected channel has detected face.

Only the camera has setup FaceFinder detection will be available for selecting.

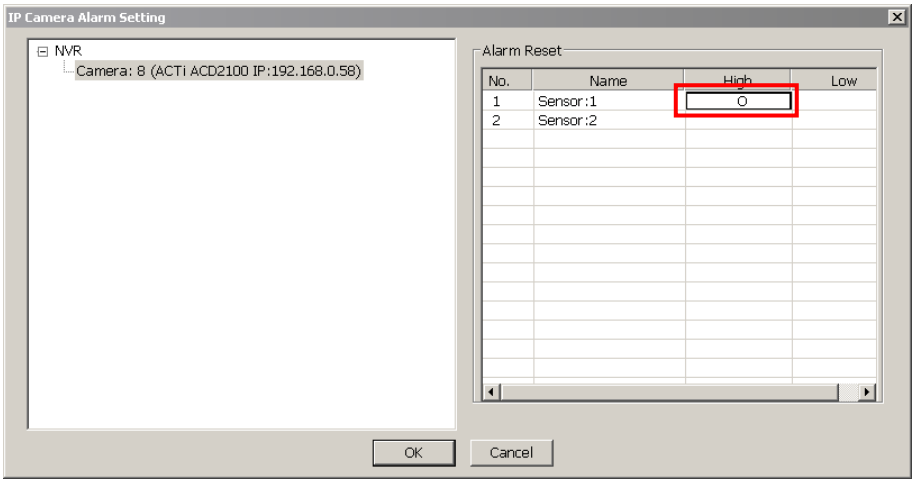
- Enable/disable the **POS Keyword** check box, to scan the data from the POS if it matches the keyword (see also Chapter 4.9.11).

- Enable/disable the **Alarm Message** check box, to active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
- Enable/disable the **Alarm Button** check box, to active manual alarm function. To define alarm message of manually alarm trigger. Click alarm button and select the alarm button # and fill in the description of alarm button. When the alarm buttons have been setup, the Alarm Button icon will show up on the DVR application UI. User can click the Alarm button icon to trigger the pre-defined alarm.



6. In **(5) Alarm Reset**, click the camera number (01 to 16) to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the sensor condition to low.

   To set sensor status of IP camera, click **IP Camera Sensor**. In IP Camera Alarm Setting windows, click **High**/**Low** to set sensor status.



   - **Alarm Reset Time:** Set a time for the alarm auto reset. When an alarm happen such as motion detected and video loss, the alarm will reset at the alarm reset time.

7. In **(6) Priority**, set the priority of this alarm set.
8. In **(7) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

   - **Launch EMAP**

     Display mini EMAP screen.

   - **TV Out**

     Switch to only display the video on TV from where the alarm is activated.

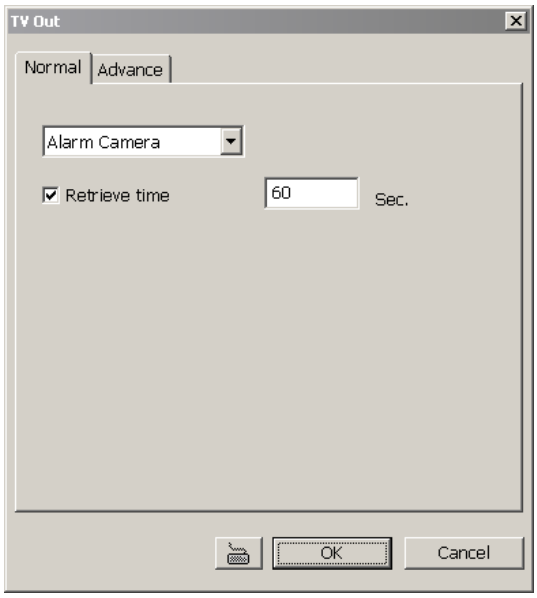
     a. Select the camera from drop down list to specify which camera video to be displayed on TV when the alarm is triggered.

        ⊙ **Alarm Camera:** when a channel has an alarm occurred, and then, the channel video

that has an alarm occurred will be displayed on TV.

- ⊙ **Camera #(1~32):** select the camera channel video that wants to be displayed on TV when an alarm is activated.

b. **Retrieve time:** set the waiting duration before system switching back to original display mode on TV automatically. If the retrieve time is un-mark, the alarm video will keep displaying until user switch back to normal display mode manually. The retrieve time range is 3~ 600 seconds.



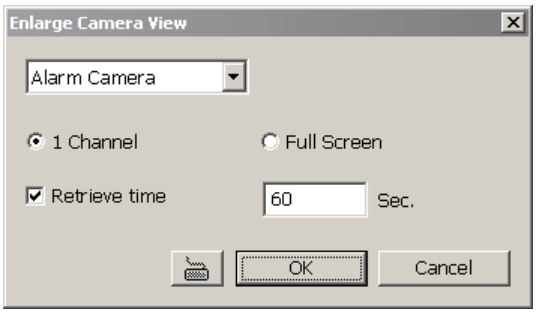
- **Enlarge Camera View**

Switch to only display video in Preview mode from where the alarm is activated.

a. Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.

- ⊙ **Alarm Camera:** when a channel has an alarm occurred, and then, the channel video that has an alarm occurred will be enlarged on screen.
- ⊙ **Camera # (1~32):** the selected channel video that will be enlarged on screen when an alarm is activated.

b. **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 3~ 600 seconds.

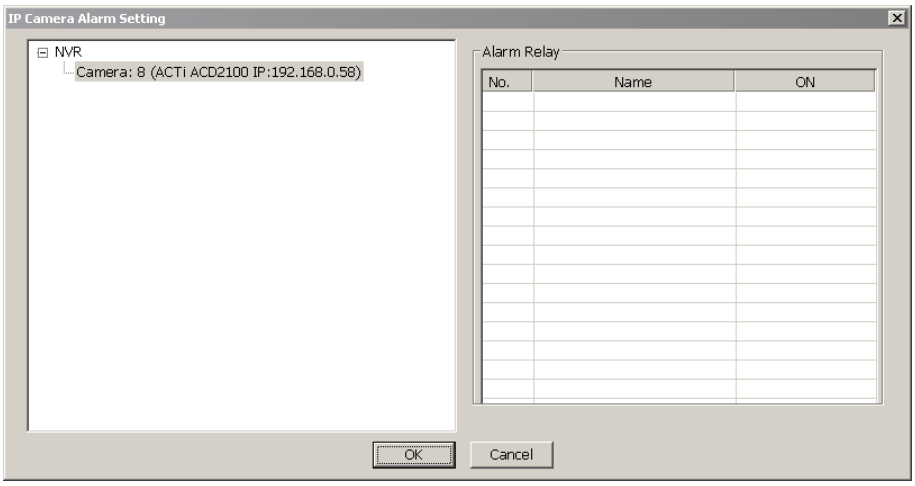


- **Relay Output**

Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation (see also Chapter 4.9.1).

- **IP Camera Relay**

To trigger on/off IP camera relay.



- **Play Warning Sound**

  Play alarm sound. To setup click **Detail** (see also Chapter 4.9.2).

- **Make Phone Calls**

  Dial and contact the number in the list. To setup click **Detail** (see also Chapter 4.9.3). To use this feature, the PC must have a voice modem connected to it. The supported audio system is only 8KHz and 16Bit mono.

- **Send E-mail**

  Send an electronic text message. To setup click **Detail** (see also Chapter 4.9.4).

- **File Transmission via FTP**

  Upload file to remote computer thru FTP (File Transfer Protocol). To setup click **Detail** (see also Chapter 4.9.5).

- **Start Recording**

  Record the video from the selected camera. To setup click **Detail** (see also Chapter 4.9.6).

- **SMS (Short Message Service)/MMS (Multimedia Messaging System)**

  SMS transmits only text messages to mobile phone. MMS transmits text messages and images over wireless networks using the wireless application protocol (WAP). Make sure your mobile phone support this feature and your PC is connected to GSM/GPRS modem. To setup click **Detail** (see also Chapter 4.9.7).

- **PTZ preset point**

  Position the PTZ camera based on the preset point setting. To setup click **Detail** (see also Chapter 4.9.8).

- **Alarm SOP (Standard Operation Procedure)**

  List the instructions to inform the person of what to do when the alarm is activated. To setup click **Detail** (see also Chapter 4.9.9).

- **Send to CMS (Central Management System)**

  Enable/disable the selected camera to send video to CMS when the alarm is activated (see also Chapter 4.9.10)

- **Launch Program**

  To call up the external program that is provided by 3rd party. Click **Detail** and click ... to locate the program path. Enable **Multiple instance** check box to allow the program can be executed many times at the same time.

- **Snapshot**

  Take a snapshot when the alarm is activated.

  a. **Select Camera:** specify which channel video to be snapshot when the alarm is occurred.
     - ⊙ **Alarm Camera:** when a channel has an alarm occurred, and then, the DVR system will snapshot the channel video.
     - ⊙ **Camera # (1~32):** the selected channel would be snapshot when an alarm is occurred.

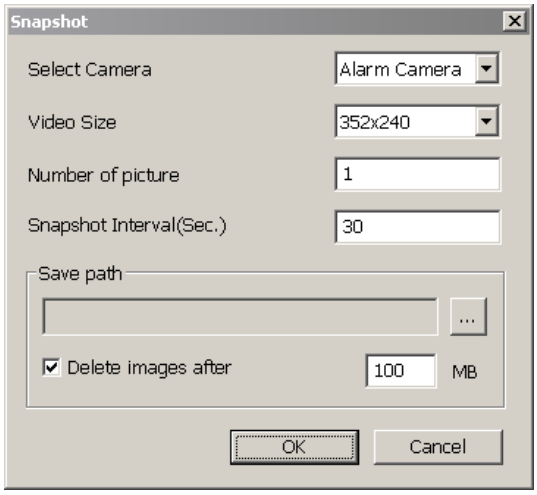
  b. **Video Size:** select the size of snapshot picture.

  c. **Number of picture:** the number of picture that is going to be taken.

d. **Snapshot Interval:** a time gap for next snapshot

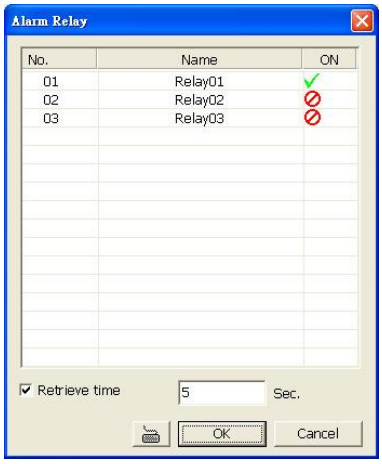
e. **Save Path:** a storage path for saving snapshot pictures.

f. **Delete image after:** Set a snapshot images storage limit on hard disk. When the snapshot images storage limit has reached, the DVR system will delete the snapshot images from hard disk.



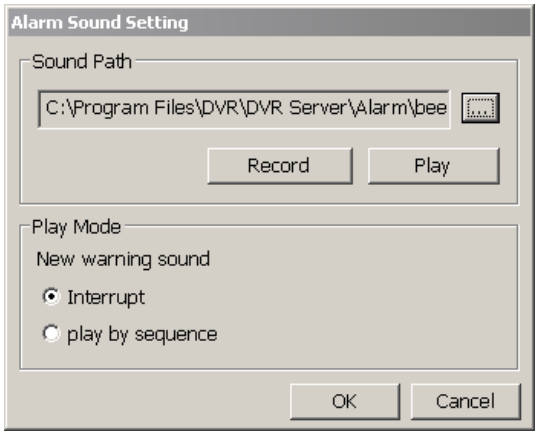
3.9.1 To Setup Alarm Relay:

1. Next to the Relay Output check box, click **Detail**.
2. In the Alarm Relay dialog box, select from the available relay list and in the ON column, set to enable/disable the relay operation when the alarm is activated.
3. In the Retrieve time check box, you may enable/disable to extend the relay operation time and set the duration in second.
4. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

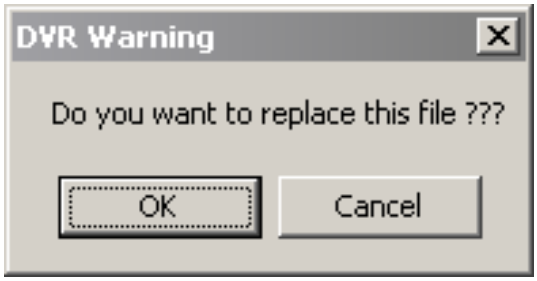


3.9.2 To Setup the Alarm Sound Setting:

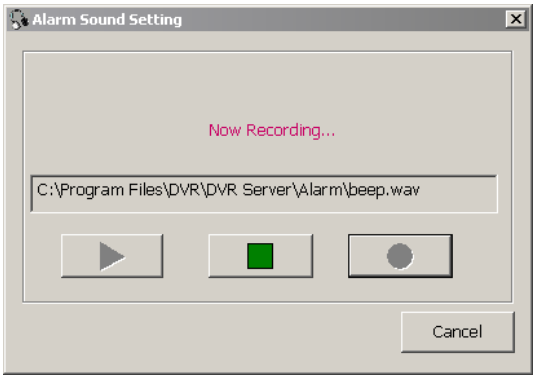
1. Next to the Play Warning Sound check box, click **Detail**.
2. In the Alarm Sound Setting dialog box, click ... to select other wav file from other source or folder, **Play** to listen, **Record** to make a new copy of a sound.



3. If you click Record, you will be prompted if you want to replace the file. Click **OK** to continue and Cancel to discontinue.

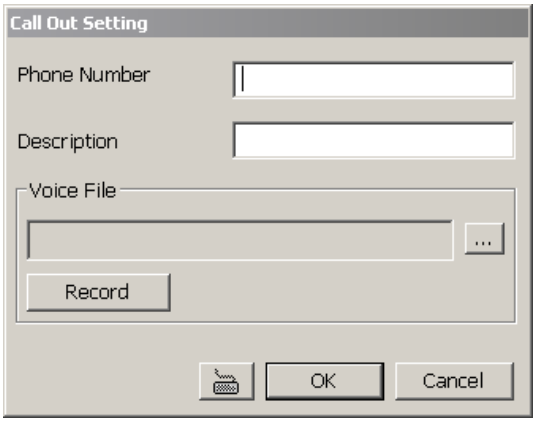


4. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to keep the existing file, click **File** > **Save As…**, enter filename and click **Save**. Make sure you have microphone connected to your PC.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

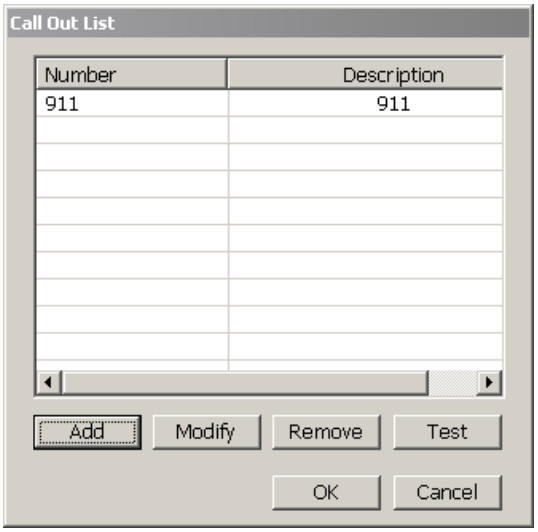


3.9.3 To Setup Call Out List:

1. Next to the Make Phone Calls check box, click **Detail**.
2. In the Call Out List, click **Add** to insert a new contact number, **Modify** to edit the selected item, **Remove** to delete the selected item, Test to check if it is working.

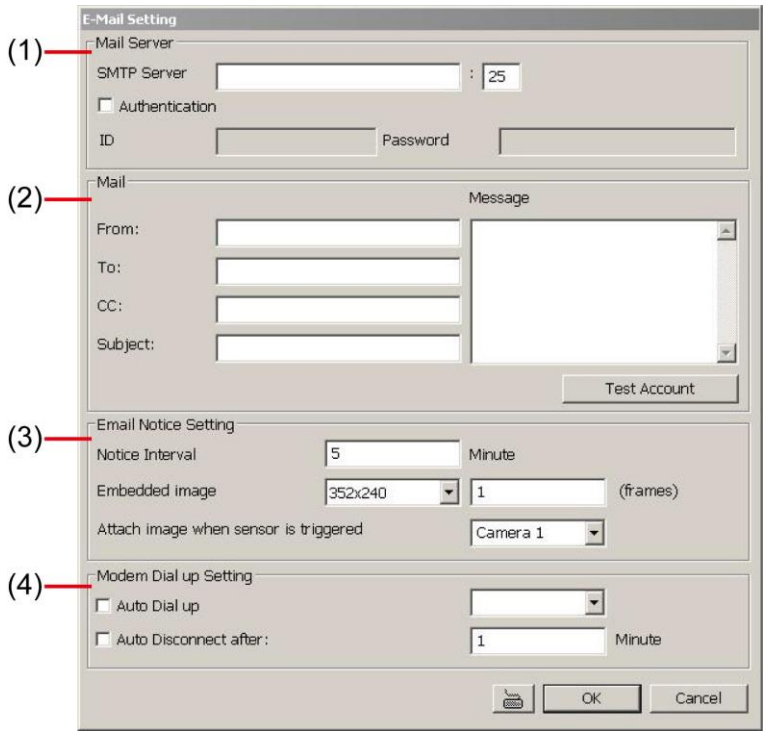


3. In the Call Out Setting, enter the phone number and description. Click ... to select existing sound recorded massager and **Record** to make a new voice message.
4. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to save the file, click **File** > **Save As…**, enter filename and click Save. Make sure you have microphone connected to your PC.
   The supported audio system is only 8KHz and 16Bit mono.
5. Click **OK** to exit and accept the setting and Cancel to exit without saving the setting.



3.9.4 To Setup Send E-mail Setting:

Next to the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



(1) Mail Server

Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.

(2) Mail

To check if it is working, click **Test Account** button.

From: Enter the sender e-mail address.

To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

(3) Email Notice Setting

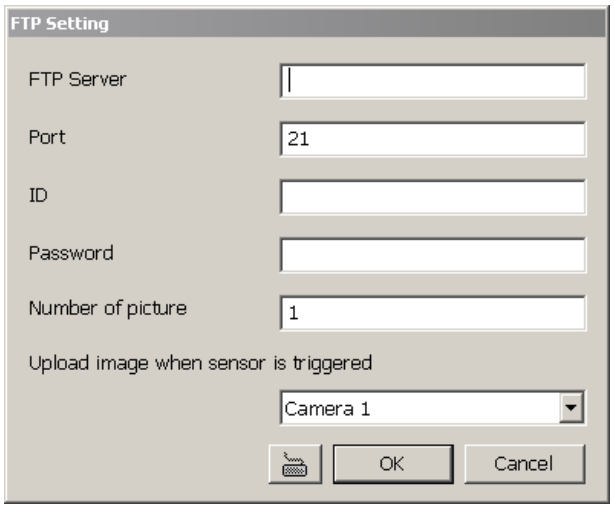
- **Notice Interval:**Set the period of time before it sends another e-mail notice.
- **Embedded image:**Select the image size and set the number of frames.
- **Attach image when sensor is triggered:**When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

(4) Modem Dial up Setting

If you are using dial up modem, enable **Auto Dial up** check box and select the modem name. You may also set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.

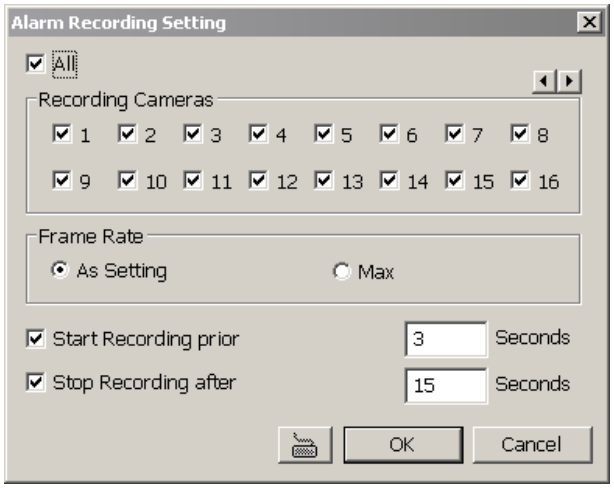
3.9.5 To Setup FTP Setting:

1. Next to the File Transmission via FTP check box, click **Detail**.
2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
3. In **Number of Pic** text box, enter the number of sequence images that want to send when file is transmitting.
4. In **Upload image when sensor is triggered**, select the camera that the images will be capture and send when the sensor is triggered.
5. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



3.9.6 To Setup Alarm Recording Setting:

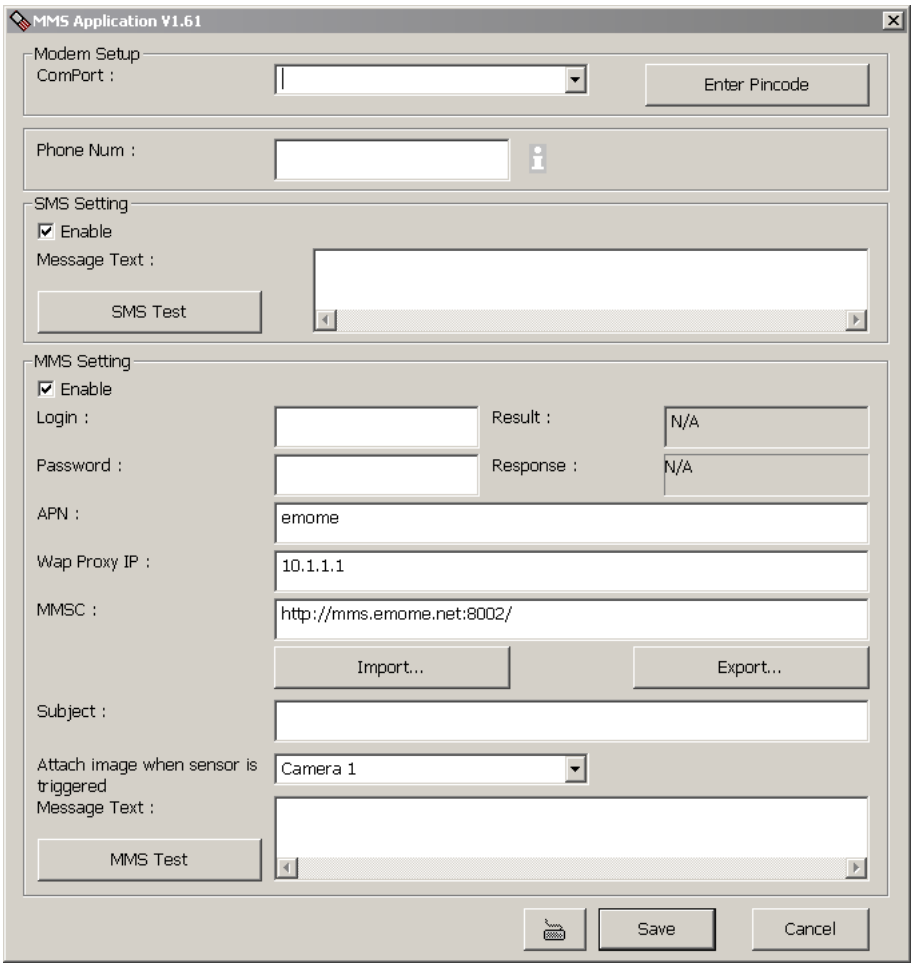
1. Next to the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed.
4. In the Stop Recording after text box, set the number in second for the program to continue recording after the alarm has ended.
5. Click **OK** to accept the new settings and **Cancel** to exit without saving.



3.9.7 To Setup SMS/MMS Setting:

To use this feature, GSM/GPRS modem is required. Connect the GSM/GPRS modem to the serial COMM port of PC. Beside the SMS/MMS check box, click **Detail**.

Select the port number in Com Port drop down list from where the GSM/GPRS modem is connected.

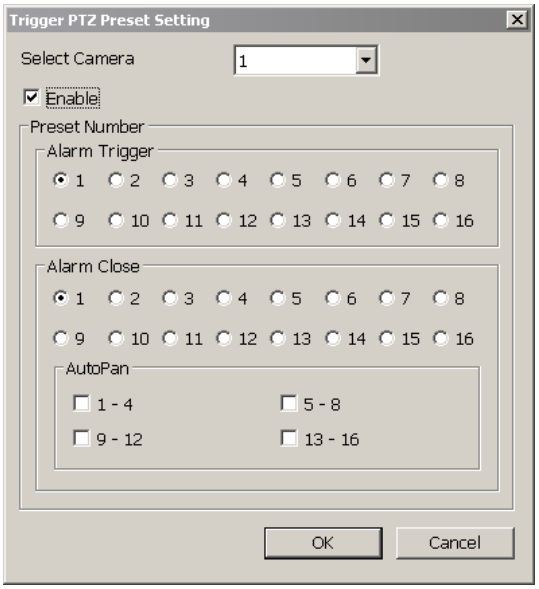


1. Click **Modem Setup** button to automatically detect the Modem Baud Rate.
2. In **Local Phone Number** text box, enter the GSM SIM card phone number.
3. In **Phone Num** text box, enter the contact number.
4. You may now set to send thru SMS &/or MMS. If you enable SMS setting, just enter the message in the text box. If you enable MMS, enter the APN name, WAP IP, MMS address and the message. If you are not sure, please contact your mobile service provider.
5. **Attach image when sensor is triggered** select the camera that the images will be capture and send when the sensor is triggered.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

Make sure your ISP provider and cell phone provider both support JPG file format transmitting.

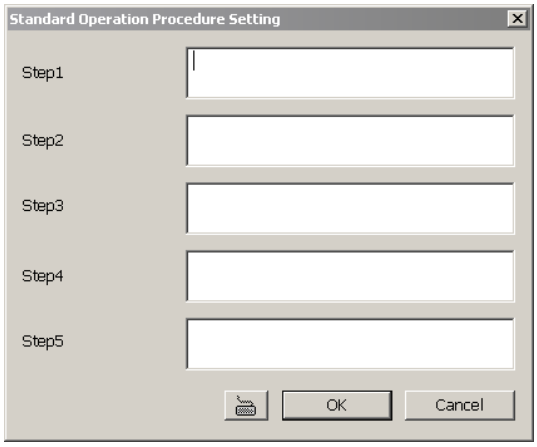
3.9.8 To Setup PTZ Preset Point:

Next to the PTZ preset point check box, click **Detail**. In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number then select the Enable check box. Select the position of the PTZ camera when the alarm is activated and ended. For the PTZ camera ended point, user also can select one preset position or **Auto Pan** between preset position groups.



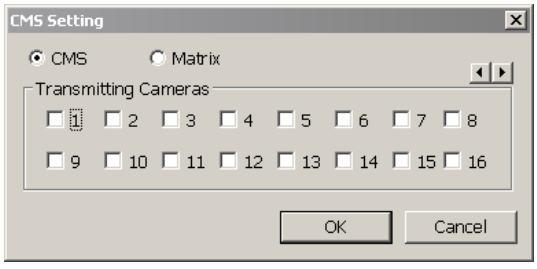
3.9.9 To Setup Alarm SOP:

Next to the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.



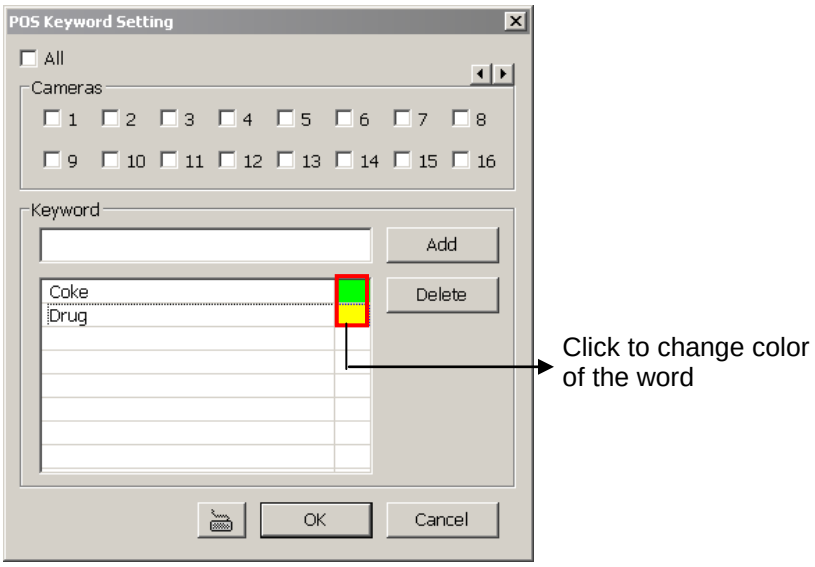
3.9.10 To Setup CMS Setting

Next to the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.



3.9.11 To Setup POS Keyword Setting

1. Next to the Send to POS Keyword check box, click **Detail**.
2. In the POS Keyword Setting, select the camera to enable/disable scanning the keyword. Enable **All** to select all cameras.
3. Enter the text below keyword text box. Click **Add** to include the keyword in the list. To remove, select the word in the list and click **Delete**. You may only add 8 keywords. User can define the color for each keyword. To set the color, click the color panel after next to POS keyword column and a color selection window will pop up. Select the color that user wants and click **OK.**
4. Click **OK** to accept the new settings and Cancel to exit without saving.

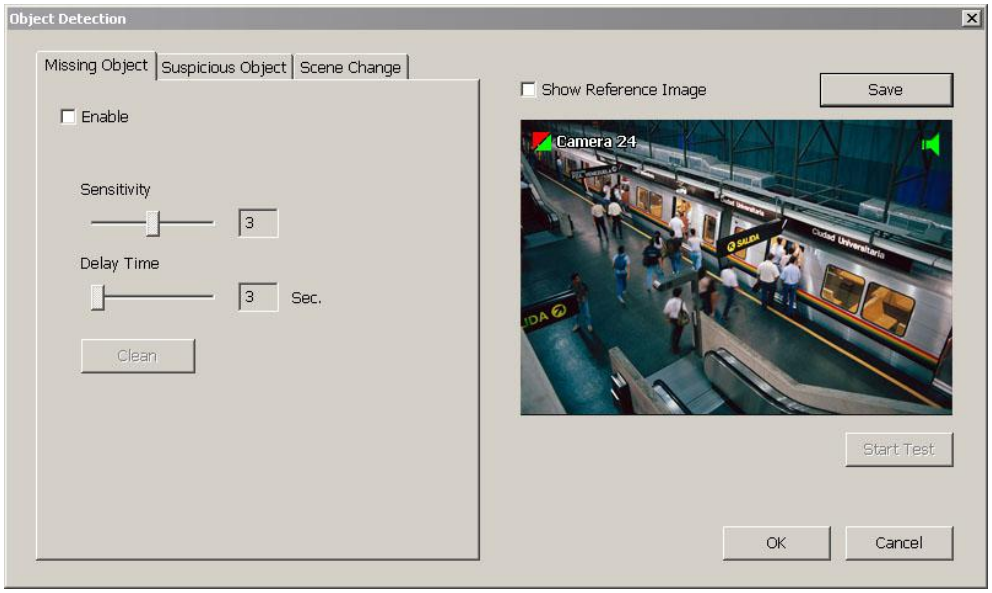


3.9.12 Missing, Suspicious Object, and Scene Change Detected

- **Missing Object**

  Select the certain object on the screen for the system to detect; when the object is disappear or move and the system will alarm. Click **OK** to exit and save the configuration. To exam the setup condition, click **Start Test**.

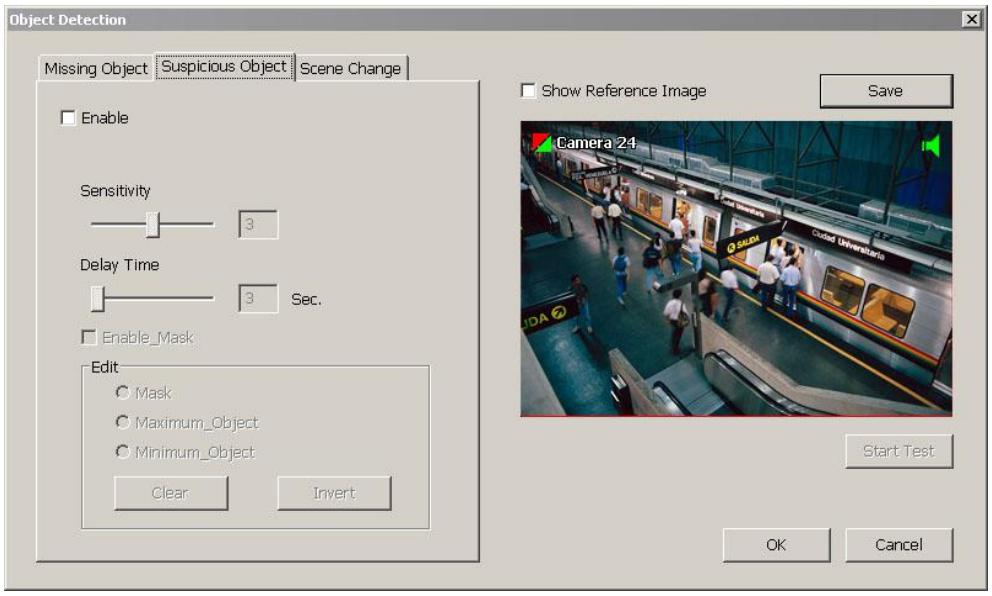
  1. Select the camera number (0-16) and press RIGHT button on the mouse to call up the setup windows.
  2. Click **Save** to capture the image for comparing reference first. To view the captured image, enable the **Show Reference Image** check box. The captured image will display on screen. The reference image is sharing with the Suspicious Object and Scene Change function.
  3. Mark the **Enable** check box to setup the condition.
  4. Use the mouse to click and drag the frame on the screen. User can drag more than one frame.
  5. **Sensitivity:** Set the system detects sensitivity.
  6. **Delay Time:** Set the lasting time for system to detect the object.
  7. To reset all object frames, click **Clean**. To clean an object frame, click right button of mouse and drag the object frame that user want to clean.



- **Suspicious Object**

  Suspicious Object is including the object missing or the doubtful object appears on the screen. Click **OK** to save and exit the setup windows. To exam the setup condition, click **Start Test**.

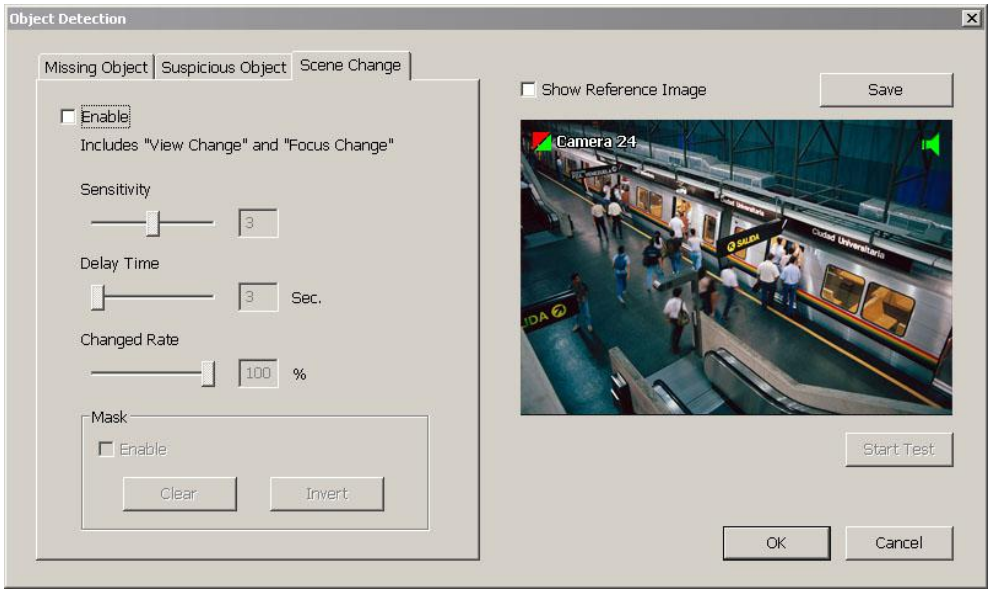
  1. Select the camera number (0-16) and press right button on the mouse to call up the setup windows. And then, click the **Suspicious Object** Tab.
  2. Click **Save** to capture the image for comparing reference. To view the captured image, enable the **Show Reference Image** check box. The captured image will display on screen. The reference image is sharing with the Missing Object and Scene Change function.
  3. Mark the **Enable** check box to setup the condition.
  4. **Sensitive:** Set the system detects sensitivity.
  5. **Delay Time:** Set the lasting time for system to detect the object.
  6. Use the mouse to click and drag the frame on the screen.
     - **Maximum_Object:** the maximum detect size. The objects are out of the maximum detect area will be disregard. Use mouse to click and drag the frame on the screen.
     - **Minimum_Object:** the minimum detect area. When the objects are smaller than the minimum detect area, the system will disregard. Use mouse to click and drag the frame on the screen.
  7. **Enable Mask:** Mark an area on the screen to disregards the motion in the marked area and to only monitor outside the marked area. Mark the **Enable Mask** check box, click and drag the mask frame on the screen.
  8. To reset all object frames, click **Clean**. To clean an object frame, click right button of mouse and drag the object frame that user want to clean



- **Scene Change**

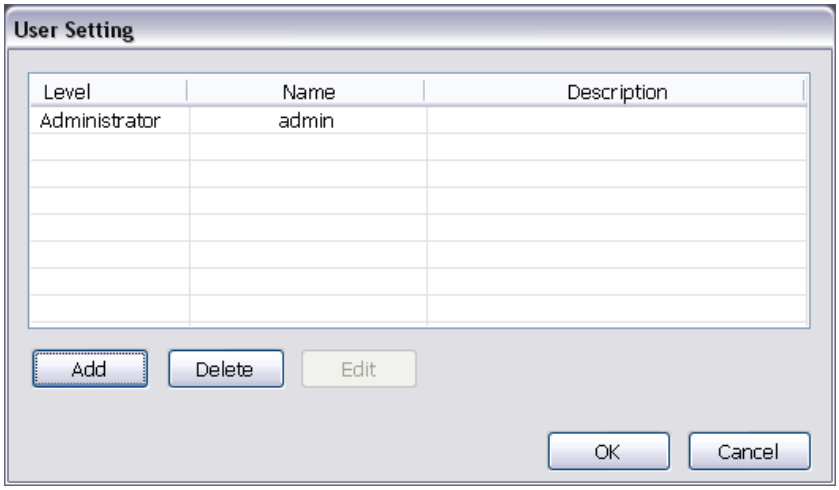
  When the camera has been moved, the system will alarm.

  1. Select the camera number (0-32) and press right button on the mouse to call up the setup windows. And then, click the **Scene Change** Tab.
  2. Click **Save** to capture the image for comparing reference. To view the captured image, enable the **Show Reference Image** check box. The captured image will display on screen. The reference image is sharing with the Missing Object and Suspicious Object function.
  3. Mark the **Enable** check box to setup the condition.
  4. **Sensitive:** Set the system detects sensitivity.
  5. **Delay Time:** Set the lasting time for system to detect the movement.
  6. **Change Rate:** Set the camera movement range which compare with the original position.
  7. **Enable Mask:** Mark an area on the screen to disregards the motion in the marked area and to only monitor outside the marked area. Mark the **Enable Mask** check box, click and drag the mask frame on the screen.
  8. To reset all object frames, click **Clean**. To clean an object frame, click right button of mouse and drag the object frame that user want to clean.

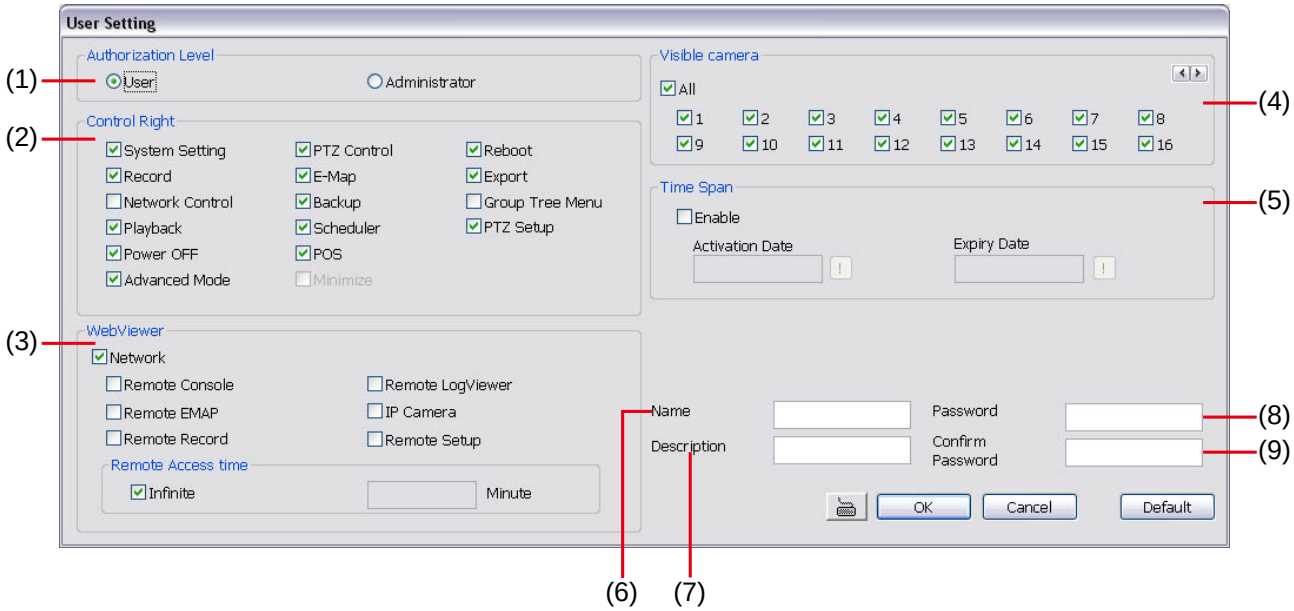


3.10 User Setting

Only users with **Administrator** privileges can access **User Setting**. In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user control right, **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.



After clicking **Add** or **Edit**, you may customize the user control setting. **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting



(1) Authorization level

Select the status of the user. Only Administrator-level can access User Setting, and reset the Alarm status when using the Remote Console.

(2) Control Right

Enable the items that would allow the user to access.

(3) WebViewer

Enable/disable Web Viewer control right that allow the user to operate from a remote location using internet explorer.

- **Remote Console**
  Allow the user to remote modify DVR system setting.
- **Remote LogViewer**
  Allow the user to view the event log from remote site.
- **Remote EMAP**
  Allow the user to view the E-map of DVR from remote site.
- **Remote Record**
  Allow the user to record video at remote site.

- **Remote Setup**
  Allow the user to modify the DVR system setup from remote site.
- **IP Camera**
  Enable/disable user to add new IP camera when using the Web Viewer.
- **Remote Access Time**

  Enable **Infinite** check box to access DVR without time limit. If you want to set time limit, enter the number of minutes in **Minute** text box.

(4) Visible Camera

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

(5) Time Span

Set the user account a specific time period that user only can use given account to login DVR program in that specific period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

(6) Name

Enter the user name.

(7) Description

Enter the user description.

(8) Password

Enter the user password.

(9) Confirm Password

Enter the same user password for confirmation.

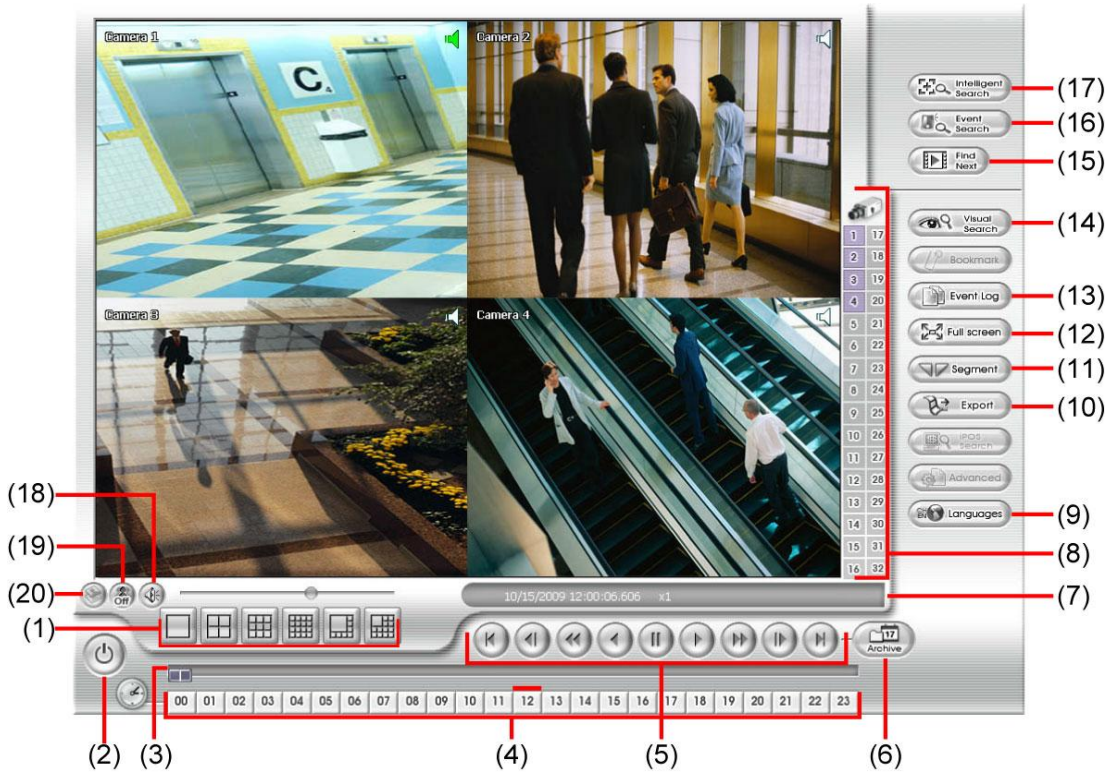
Chapter 4 Backup Video Players

You can playback the backup files using QPlayer applications. When you back up the recorded file, QPlayer applications are automatically included in the backup folder.

With QPlayer, it is the same as in Playback mode and supports 6 different split screen types to view all the video at the same time. User even can select the different language of display UI. The only difference is that there are no Preview and Playback buttons.

To run the application, go to backup folder and double-click Q Player icon.

4.1 Familiarizing QPlayer Buttons



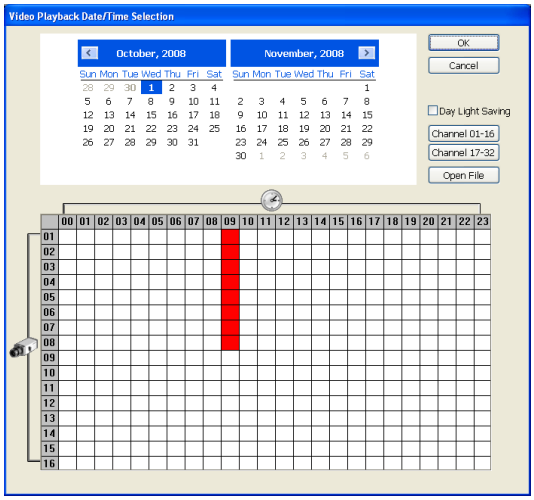
Name	Function
(1) Split Screen Mode	Select from 6 different split screen types to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.

(2) Exit	Close the player.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, or 1/16X. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − **OPEN FILE:** user can open the recorded file from HDD − **Channel 01~ 16**&**Channel 17 ~ 32:** Switch to different channel group of playback calendar. − **Day Light Saving:** the playback calendar will show the available video records during day light saving time period. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Language	Select the function tip display language.
(10) Export	Export includes Snapshot, Print, Output Video Clip, and Backup function. ▪ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ▪ **Print:** Print the screen shot. ▪ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 3.7).
(11) Segment	Keep a portion of the recorded video (see also Chapter 3.7).
(12) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. Click the arrow icon to escape from full screen display mode When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.

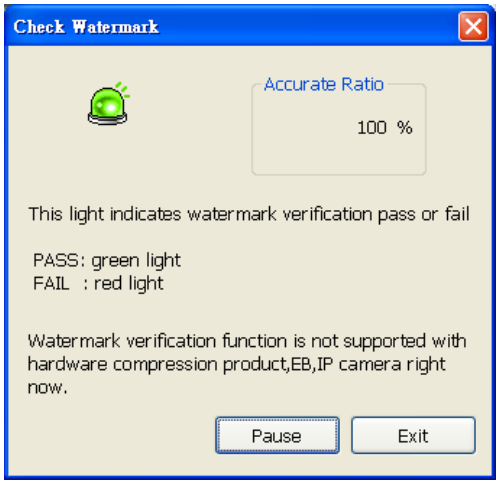
When there are dual monitors with 32 channels, the full screen mode will split into 16 channels on each monitor.

Name	Function
(13) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 3.9)
(15) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(16) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS). (See also Chapter 3.11)
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.11).
(18) Audio	Enable/disable volume
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(20) Watermark	To verify the playback video has not been modified (also see Chapter 5.1.1)

4.1.1 Watermark Verification

QPlayer program can only verify when a single channel in full screen playback mode. To verify the playback video doesn't been modified. Click to verify the playback video.

The checking result is shown as below figure:


Check Watermark
Accurate Ratio
100 %
This light indicates watermark verification pass or fail
PASS: green light
FAIL : red light
Watermark verification function is not supported with hardware compression product,EB,IP camera right now.
Pause
Exit

Watermark verification doesn't support on hardware compression products and video that is recorded from IP camera.

Chapter 5 Using Functional Keys

The DVR system provides shortcut keys. The table shows the function keys and descriptions.

Function Keys	Description
Q	Exit System
F1	Display system information
F2	Start recording
F3	Enable network function
F4	Access system settings
F5	Switch to playback mode
F6	Access E-map setting
F7	Access PTZ camera control panel
F8	Snapshot
F9	Switch to Full Screen
F11	Switch to AutoScan
CTRL + F	Freeze function
CTRL + B	Quick Backup
Ctrl + A	Turn on/off hardware AGC (Auto Gain Control)

Chapter 6 Using the Remote Programs

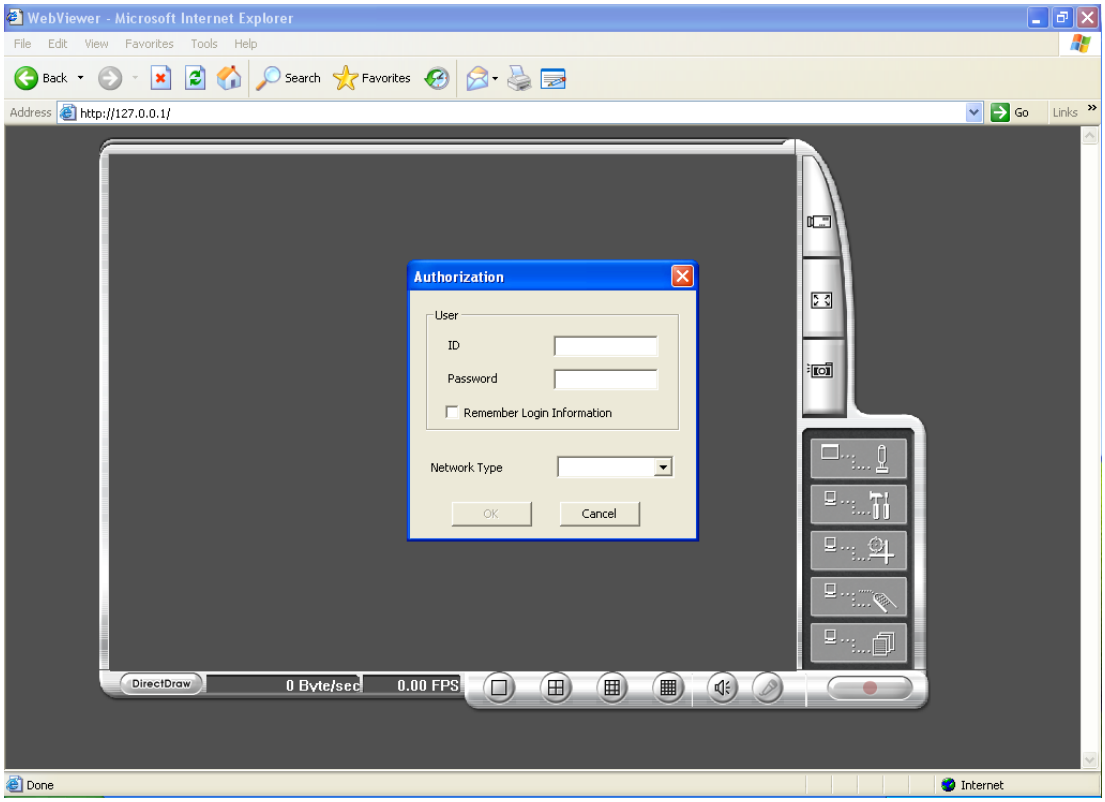
You can use Microsoft Internet Explorer to access DVR server by entering the IP address or domain name. To use this feature, make sure that you are connected to the internet and the Network feature is enabled.

Accessing this feature for the first time you will be prompted by your browser to install WebCamX.cab, allow the installation and you should be able to connect and login afterwards.

For Windows 2000, click **Yes** when the Security Warning dialog box appears.

For Windows XP, click **Install** when the Internet Explorer - Security Warning dialog box appears.

After installing the WebCamX.cab and when connecting to the DVR server, you are required to enter User ID, password and select the network type.

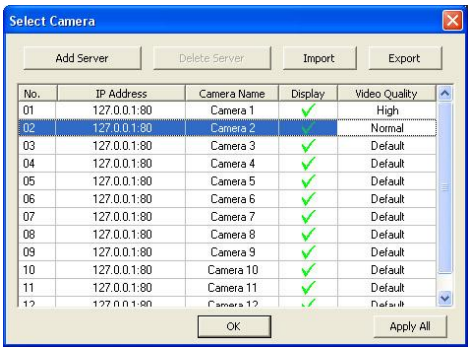


If you are not in a LAN network environment, remote playback video may be un-smooth due to network speed limitation. Slow network transmission speed may possibly cause system performance drop as well.

6.1 Familiarizing the WebViewer Buttons

Right-clicking on the webcam video screen, enables you to Start Recoding, Video Quality, Select Camera, Enable DirectDraw, and view Server Information.

Name	Function
(1) DirectDraw	Enhance the video quality.
	Not all graphic cards can support this function.
(2) Received file size	Indicate the size of the data being sent per second.
(3) Camera frames	Indicate the number of frames per second.
(4) Split display mode	Select from six (4) different split screen types to view all the cameras. It also allows you to switch and view different camera number.
(5) Audio	Enable/disable remote sound.
(6) 2-Way Talk	Enable/disable 2-way audio function. This function allows the client and server to talk via internet using MIC. Make sure your microphone and speakers work before using this function. If the DVR server Talk to web-client setting is disabled, you won't be able to hear from the other side.
(7) Record	Save the video of the selected camera in AVI format.
(8) Event Log Viewer	Display the Event logs, Operation logs, POS logs, System logs, and Network logs.
(9) Remote Console	Initiate Remote Console. The interface is the same as DVR application and allows you to control DVR server (see also Chapter 7.2).
(10) Remote EMAP	Display the DVR server EMAP screen (see also Chapter3.6).
(11) Remote setup	Change the DVR server settings (see also Chapter 7.1.1).
(12) Select a PTZ camera	Initiate PTZ camera controller (see also Chapter 7.2)
(13) Snapshot	Capture and save the screen shot in *.bmp format.
(14) Full screen	Use the entire area of the screen to only display the video. To return, Right click the mouse or press ESC on the keyboard.

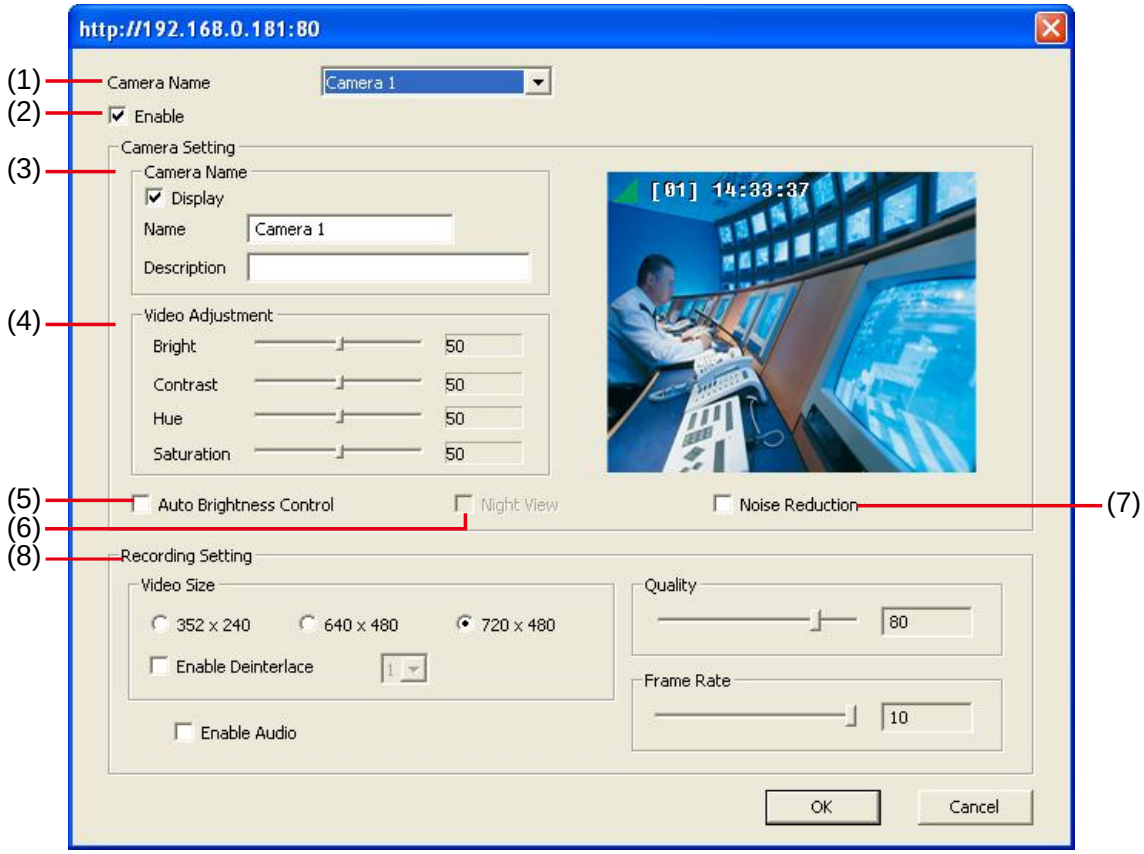
Name	Function
(15) Select cameras to view	Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera. In Video Quality column, click to select between High, Normal or Low. Click **Add Server** and select the server type between DVR and IP Cam to add. Click **Delete Server** to delete the selected item. Click **Import** to replace it with the previous saved list. Click **Export** to save the list. Click **Apply All** to change all the camera video quality based on the selected setting. Click **OK** to exit.  To add IP Cam, user need to enable IP Camera control right at the **User setting** of DVR system.(see Chapter 4.10)

6.1.1 To Setup Remote System Setting

There are two type of remote setup mode – Basic Setting and Advance Setting. Select the setup mode and click **OK** to enter setup window.

6.1.1.1 Basic Setting

Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting. The setting here applies to Remote DVR only.



(1) Camera Name

Select the camera you want to adjust the settings.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera Setting

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Name**
  Change the camera name.
- **Description**
  Add a short comment.

(4) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the selected camera.

(5) Auto Brightness Control

Automatically adjust the brightness.

(6) Night View

Automatically adjust the exposure to make the image more visible especially when the site is dark. You can only use this function when the Auto Brightness Control is enabled.

(7) Noise Reduction

Reduce undesirable video signal and improve the quality of the video.

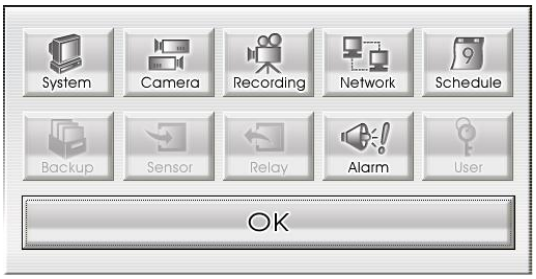
Noise Reduction uses lots of CPU resource. Please use this feature only if it is really necessary.

(8) Recording Setting

- **Video Size**
  Select the size of the video and click the ⊙ button. The higher the size, the larger the file it create. You can also activate the **Enable Deinterlace** to enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
- **Enable Audio**
  Select to assign the audio channel of the selected camera. You can only assign one audio channel to one camera source. This way you can record both audio and video.
- **Quality**
  Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.
- **Frame Rate**
  Set the number of images per second of the video to be recorded. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher frame rate, it uses more hard disk space.

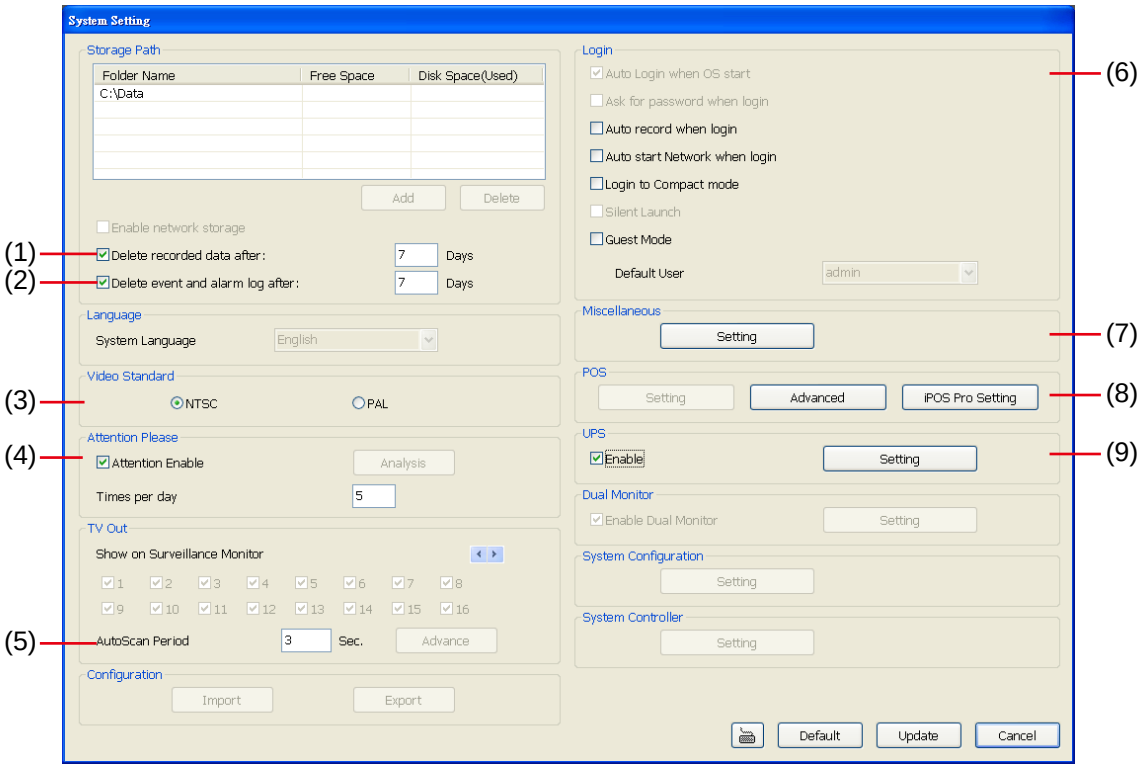
6.1.1.2 Advance Setting

In Advance setting, user can configure remote DVR in more detail.



System Setting

In the System Setting windows, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

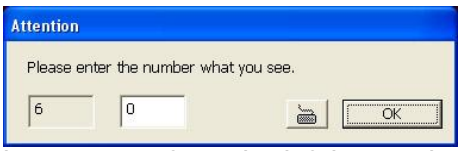
If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(4) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box.



When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.

(5) AutoScan Period

Set the TV out display time gap from 3 to 10 sec. before it switches to the next camera.

(6) Login

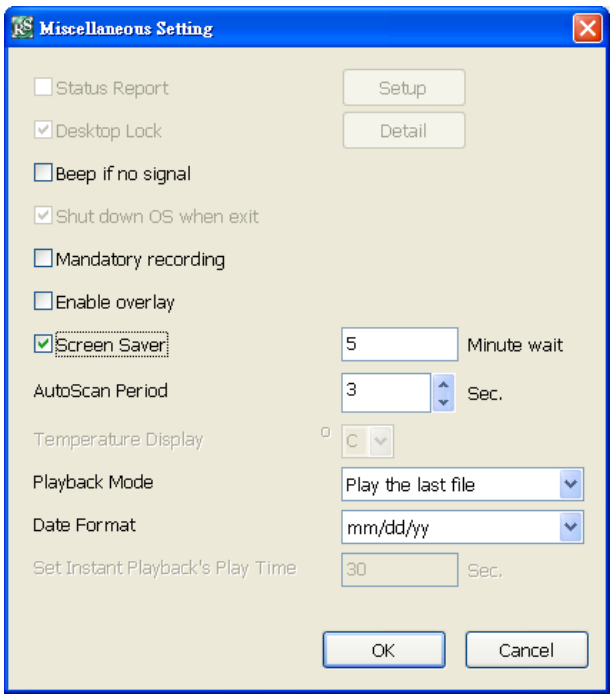
Enable the conditions in Login section you want the system to automatically carry out.

- **Auto record when login**
  Automatically start video recording when the DVR is executed.
- **Auto start Network when login**
  Automatically connect to network when the DVR is executed.
- **Login to compact mode**
  Switch to compact mode directly when the DVR is executed.
- **Guest Mode**

Automatically log in Guest mode when the DVR is executed. In guest mode, the functions are limited to preview and playback only.

(7) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.



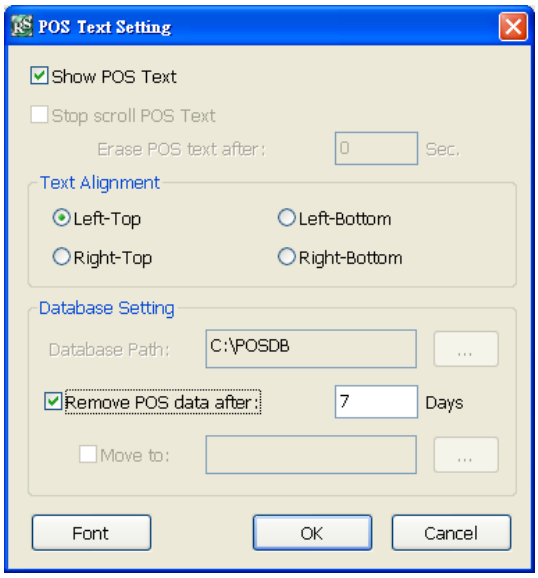
- **Beep if no signal**
  Make sound when the video signal is lost.
- **Mandatory Record**
  Always record video when software is running
- **Enable Overlay**
  To enhance video signal for better video quality.
- **Screen Saver**
  Set a period time to enter screen saver mode when system idle.
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Playback Mode**
  Select the mode of playback the video.
  - ✓ **Select date and time:** Select the date and time which user wants to playback.
  - ✓ **Play the last file:** Automatically playback the video from the last hour
  - ✓ **Instant Playback:** Automatically playback the video which has just recorded
- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode

(8) POS

■ **Advanced**

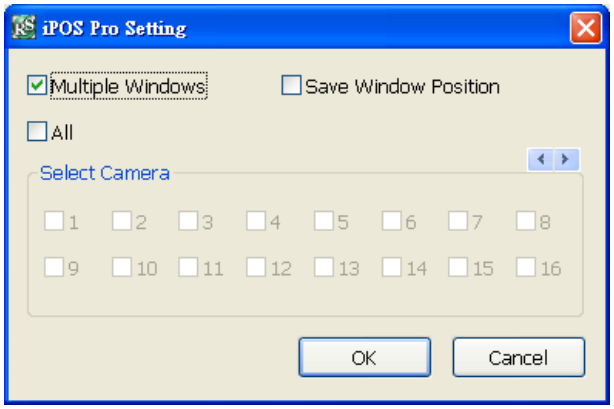
Set from which camera screen to display the data from the POS equipment. To set the text flow, color format, and POS database export, click **Advanced**.

1. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
2. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
3. To change the POS data font and color, click **Font**.
4. Mark **Remove POS data after** the POS data will be delete from DVR hard disk on the day that user has setup.



■ **iPOS Pro Setting**

Enable **Multiple windows** for viewing multi-channels of iPOS live data. To save the iPOS live data window position on the preview mode, mark the **Save Window Position**. To select all channels, mark **All** check box.

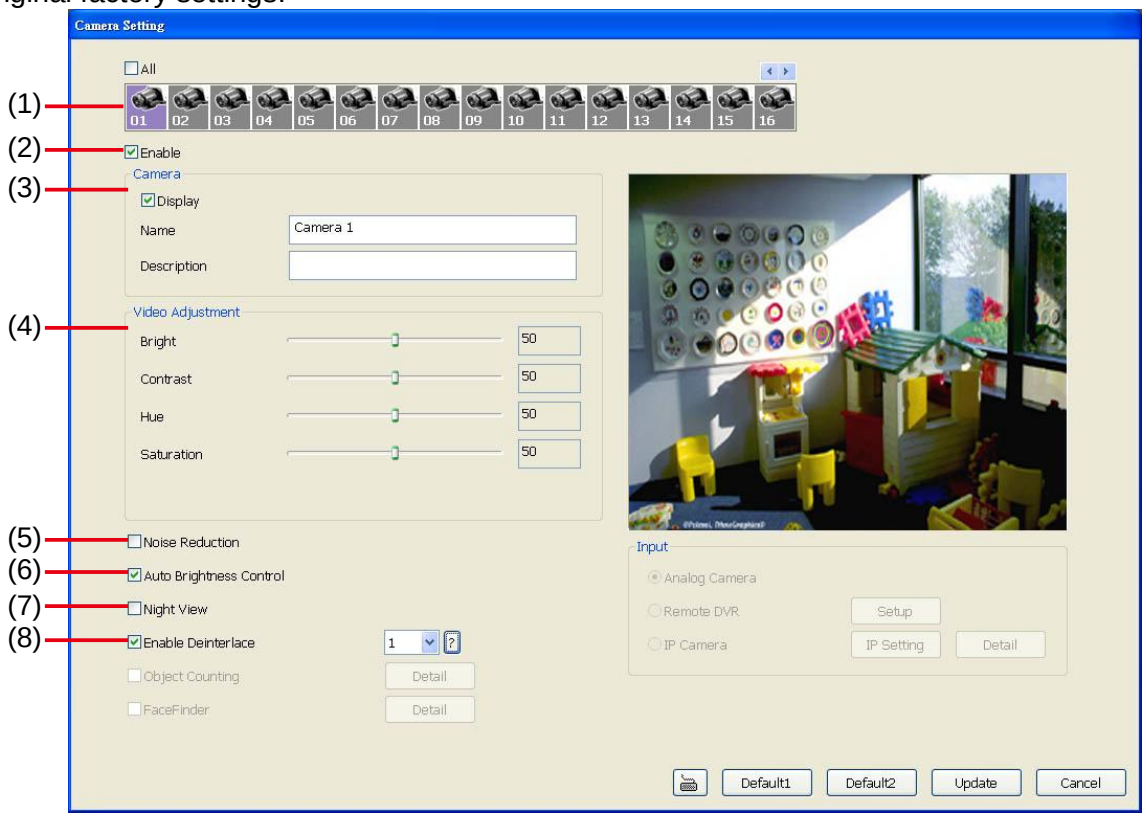


(9) UPS (Uninterruptible Power Supply)

Protect the system from damaging, such as power surges or brownouts. This automatically gives time to close the DVR properly when the battery backup power has reached the Shutdown when capacity below percentage level setting.The UPS device must be connected to your computer (refer to your UPS user's guide).

Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving, and click **Default1/ Default2** to revert back to original factory settings.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

- **Display**

  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- **Name**

  Change the camera name.

- **Description**

  Add a short comment.

(4) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the selected camera.

(5) Noise Reduction

Reduce undesirable video signal and improve the quality of the video.

Noise Reduction uses lots of CPU resource. Please use this feature only if it is really necessary.

(6) Auto Brightness Control

Automatically adjust the brightness.

(7) Night View

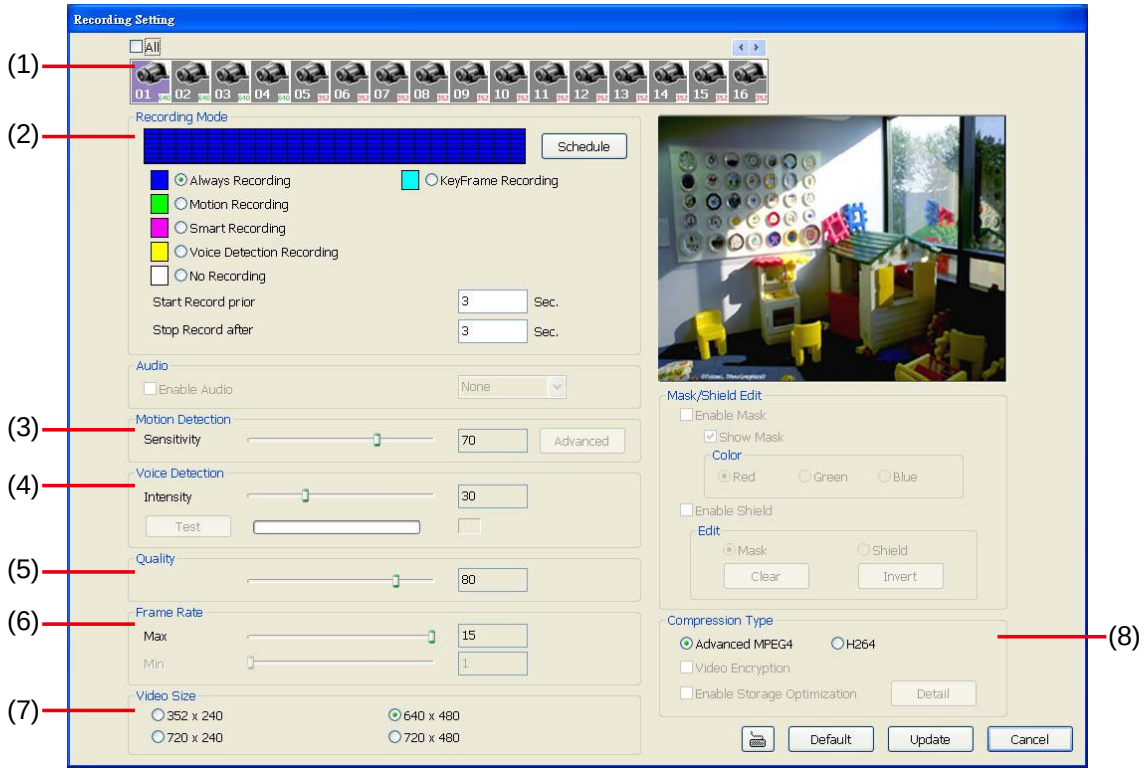
Automatically adjust the exposure to make the image more visible especially when the site is dark. You can only use this function when the ***Auto Brightness Control is enabled***.

(8) Enable Deinterlace

To enhance the video quality. Set the deinterlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

Record Setting

In the Recording setup window, click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory settings.

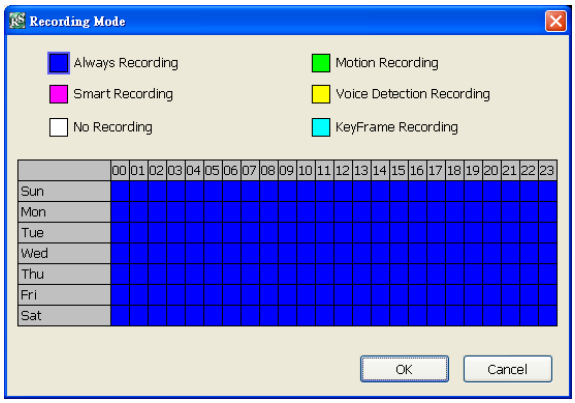


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

(2) Recording Mode

The blocks from 00 to 23 represent the time in 24-hour clock. To record in full 24 hours, select the recording mode and click the ⊙ button. If you want to only record at a particular time, click the colored block beside the recording mode then click on the time blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting. Set the maximum and minimum frame rate setting in (6) Frame Rate section.

- **Voice Detecting Recording**
  DVR system will record the sound when the voice exceeds the intensity value in Voice Detection setting.
- **No Recording**
  The system won't do any recording.
- **KeyFrame Recording**
  Only record one frame per second.

(3) Motion Detection
Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

(4) Voice Detection
Adjust the intensity of the audio detector. The system detects sound when it exceeds the intensity value.

(5) Quality
Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

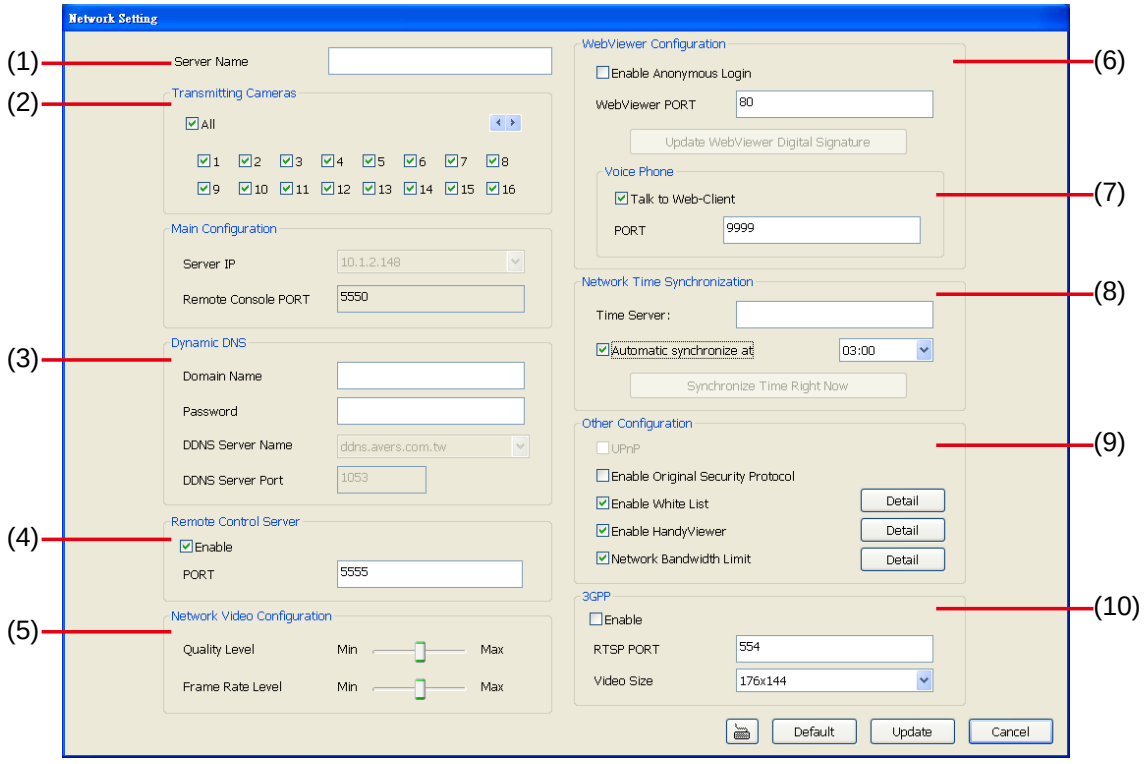
(6) Frame Rate
Set the maximum number of frames to be recorded during motion and motionless state. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

(7) Video Size
User can activate the **Enable Deinterlace** to enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

(8) Compression Type
H264 is the latest and advanced video compression format that delivers better video quality and smaller file size but this uses more CPU resource. Advanced MPEG4 provides a standard for color picture compression rate.

Network Setting

In the Network Setting window, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory settings. For the network service ports that use by DVR server, please see Appendix A.



(1) Server Name
Assign a name for the DVR unit. Letters of the alphabet and numbers only.

(2) Transmitting Cameras
Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebCam, Remote Console, PDA Viewer and HandyViewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Dynamic DNS (Domain Name System)

For information about Dynamic DNS options see http://www.luxonvideo.com/quickstart201.php and scroll down to the DynDNS Section.

(4) Remote Control Server

Enable/disable remote control from remote application (ex. CMS). Enter the remote accessing port in **Port** column.

(5) Network Video Configuration

Set up the video quality and frame rate for viewing and transmitting to the remote program. Scrolling adjust bar to set the **Quality level** and **FrameRate level**.

(6) WebViewer Configuration

Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password. The default of WebViewer port is 80.

(7) Voice Phone

Voice Phone is a 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the DVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated. (See also Chapter 7.1 #6). The default port of voice phone is 9999.

(8) Network Time Synchronization

Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

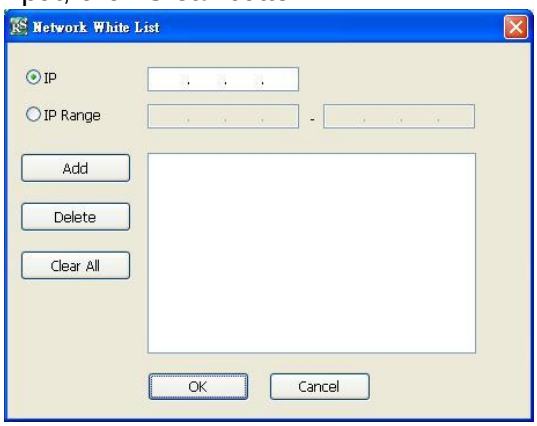
(9) Other Configuration

- **Enable Original Security Protocol**

  Enable new version DVR system to accept remote software with former version. For example, if user uses CMS version 7.5 and connect to DVR server with version 7.7, and then, user has to enable this option to make it work. It is due to that DVR system has some new security protocol in DVR with version 7.3 and newer version, and it's not compatible with old remote software.

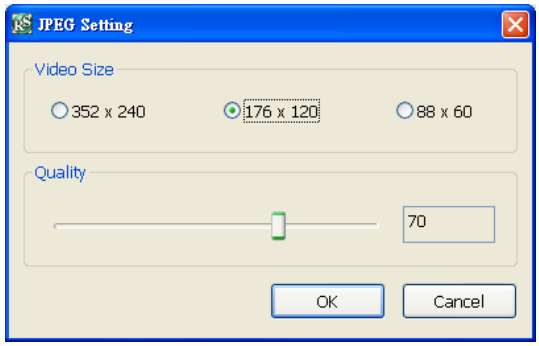
- **Enable White List**

  An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.

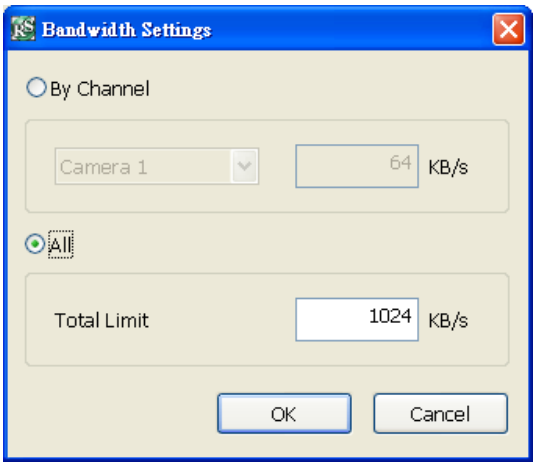


- **Enable HandyViewer**

  Enable remote users to use a PDA or a mobile phone to access DVR server and select the video size and quality. (See also Chapter 7.5 and 7.6)

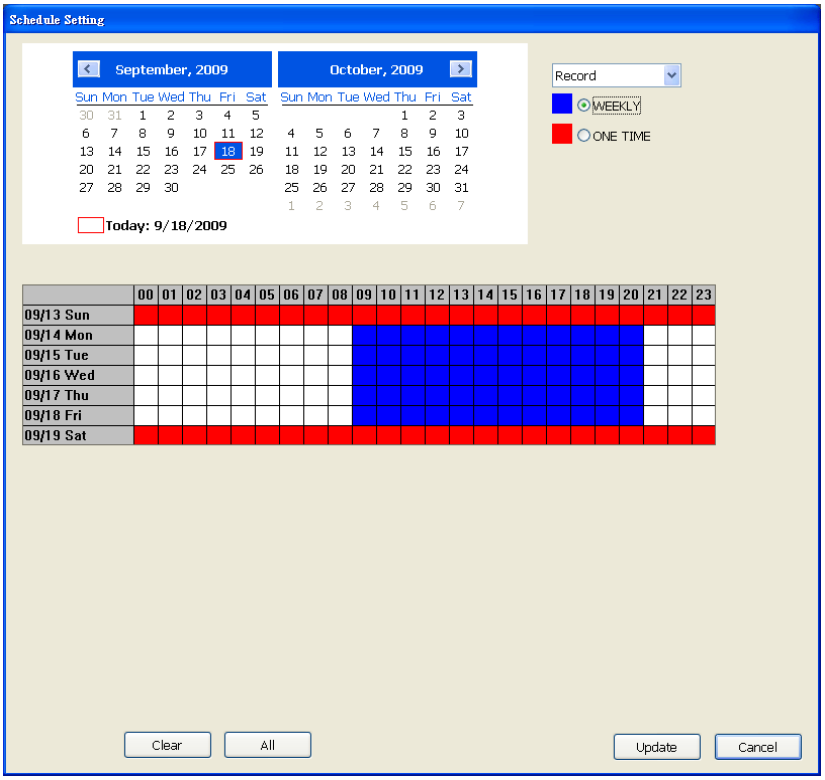


- **Network Bandwidth Limit**
  - ✓ **By Channel:** Set the network bandwidth by each channel.
  - ✓ **All:** Set the total network bandwidth consumption limit.



Schedule Setting

Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



To Set the Schedule Setting:

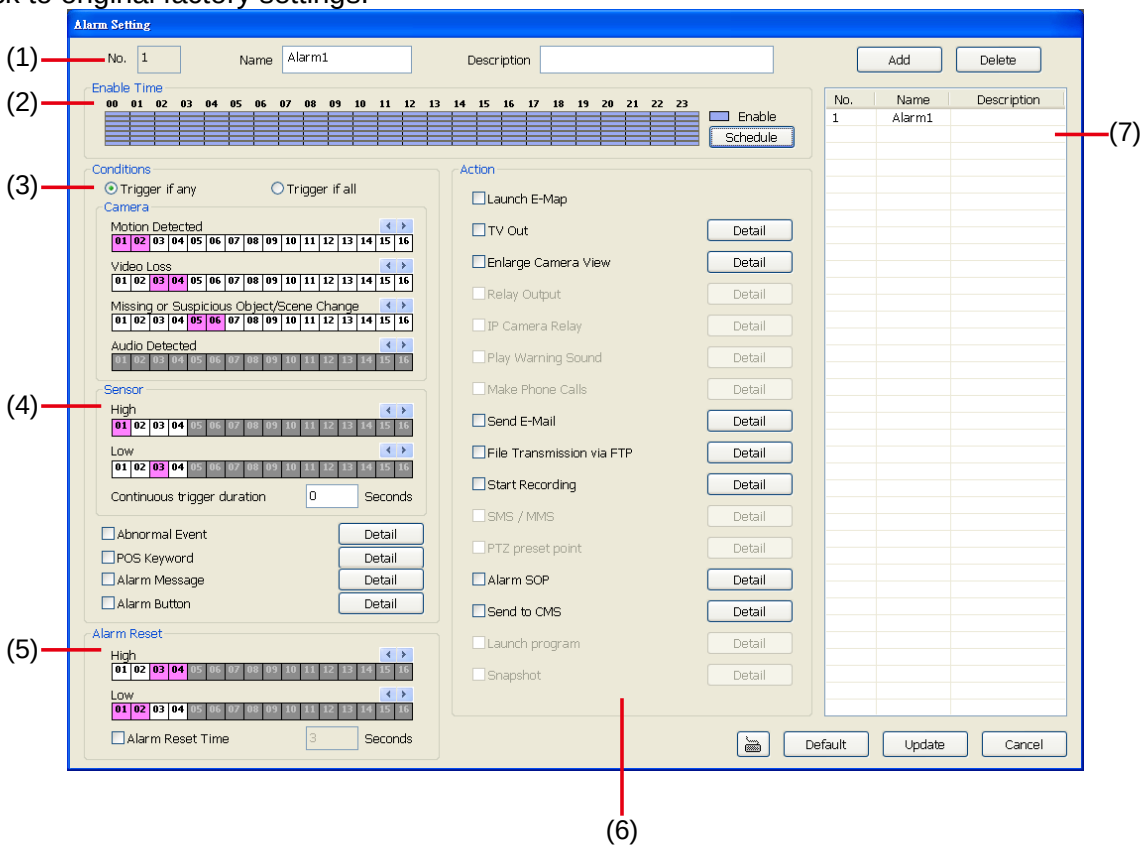
1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting (see also Chapter 4.3).
   - **Backup**
     Save another copy of all the data at the set time and specified backup path. DVR automatically updates and only backup the data that are not yet included in the archive.
     ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
     ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.
   - **Network**
     Activate DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
   - **Reboot**
     Restart the PC at the appointed time.

   Make sure the Windows operating system is set **NOT** to require you to login user name and password. This way the system will be able to run DVR program.

   - **Disable Alarm**
     Deactivate the alarm at the set time temporarily.
   - **Turn on Relay**
     Activate the relay at the set time. Number of relays are depending on the relays has connected with DVR system.
3. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule (see also Chapter 4.5.1). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **Update** to exit and accept the setting and **Exit** to exit without saving the setting.

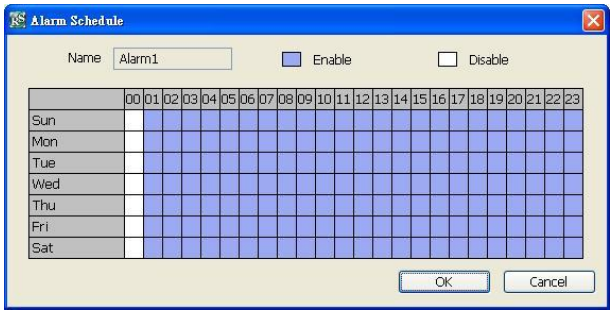
Alarm Setting

In the Alarm Setting window, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory settings.



To set the Alarm Setting:

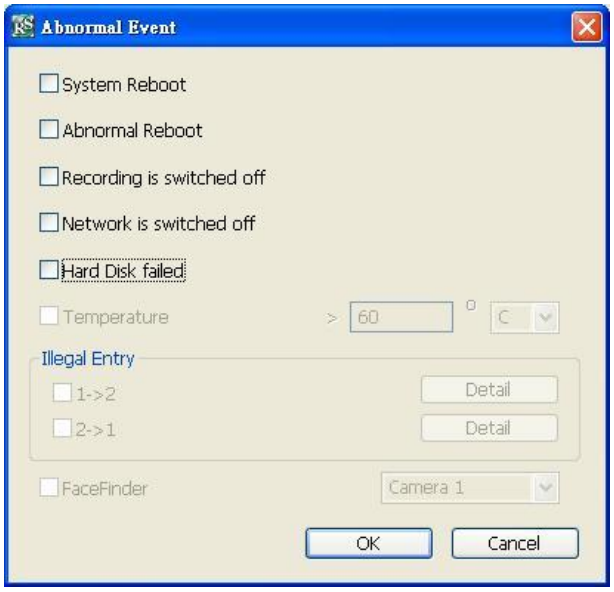
1. Click **Add** to insert and set a new alarm setting. Click the items in the **(8) Alarm Setting List**, if you want to modify the alarm setting.
2. In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.



4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
   - In Camera section, select and click on the camera number (01 to 32) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
   - In **Missing and Suspicious Object/Scene**, click the camera number (01 to 32) and select the certain object on the screen (right click on camera number for detailed setting)), and when the certain object is missing or doubtful, the system will alarm. (see also Chapter 4.9.12) In **Scene Change**, when the camera has been moved, the system will alarm, too.
   - In **Audio Detection**, click the camera number (01 to 32) to the system to alarm when detect the abnormal voice.
5. In **(4) Sensor**, select and click on the sensor number (use ◀ and ▶ to select the sensor) to set the

condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.

- **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
- **Abnormal Event:** Enable/disable to set the condition of the event for system to alarm..



  - ✓ **System Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
  - ✓ **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
  - ✓ **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
  - ✓ **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
  - ✓ **Hard Disk failed:** when the hard disk can't work normally, the system will send out the alarm message.
- **POS Keyword:** Enable/disable to scan the data from the POS if it matches the keyword (see also Chapter 4.9.11).
- **Alarm Message:** To active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
- **Alarm Button:** Enable/disable to active manual alarm function (see also Chapter 2.2#(19)). To define alarm message of manually alarm trigger. Click alarm button and select the alarm button # and fill in the description of alarm button.

6. In **(5) Alarm Reset**, click the camera number (use ◀ and ▶ to select the alarm) to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the sensor condition to low.
   - **Alarm Reset Time:** Set a time for the alarm auto reset. When an alarm happen such as motion detected and video loss, the alarm will reset at the alarm reset time.
7. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.
   - **Launch E-Map**
     Display mini Emap screen.
   - **TV Out**
     Switch to only display the video on TV from where the alarm is activated.
     - ✓ **Retrieve time:** set the waiting duration before system switching back to original display mode on TV automatically. If the retrieve time is un-mark, the alarm video will keep displaying until user switch back to normal display mode manually.

- **Enlarge Camera View**
  Switch to only display video in Preview/Advanced mode from where the alarm is activated.
  - ✓ **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually.

- **Send E-mail**
  Send an electronic text message. To setup click **Detail** (see also To Setup Send E-mail).
- **File Transmission via FTP**
  Upload file to remote computer thru FTP (File Transfer Protocol). To setup click **Detail** (see also To Setup FTP).
- **Start Recording**
  Record the video from the selected camera. To setup click **Detail** (see also To Setup Alarm Recording).
- **Alarm SOP (Standard Operation Procedure)**
  List the instructions to inform the person of what to do when the alarm is activated. To setup click **Detail** (see also To Setup Alarm SOP).
- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated (see also To Setup CMS Setting)

To Setup Send E-mail Setting

Next to the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

(1) Mail Server: Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.

(2) Mail: To check if it is working, click **Test Account** button.

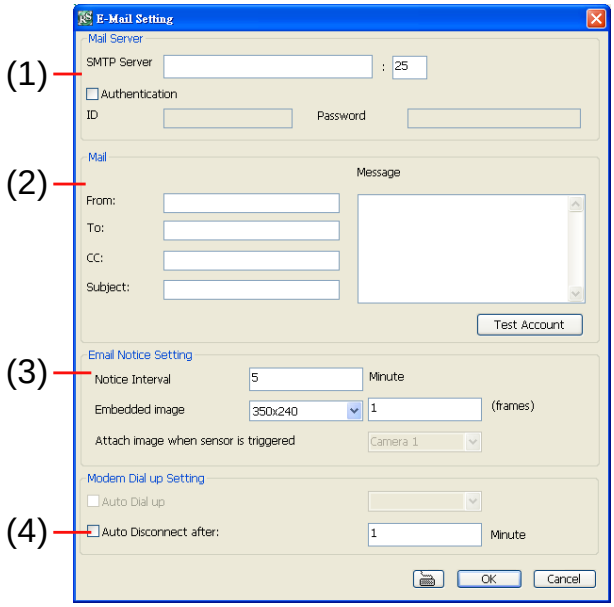
- **From:** Enter the sender e-mail address.
- **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
- **Subject:** Enter the message title.
- **Message:** Type the message.

(3) Email Notice Setting

- **Notice Interval:** Set the period of time before it sends another e-mail notice.
- **Embedded image** **:** Select the image size and set the number of frames.
- **Attach image when sensor is triggered:** When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

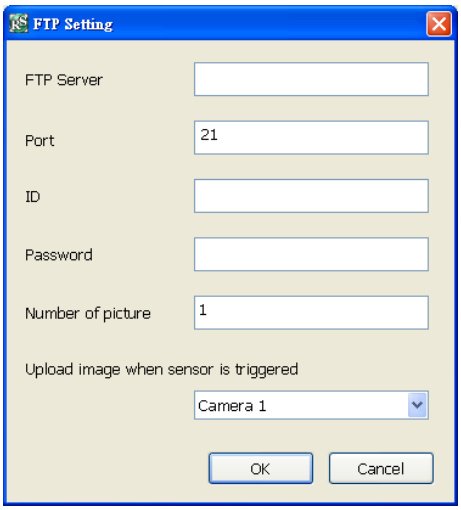
(4) Modem Dial up Setting

User may set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.



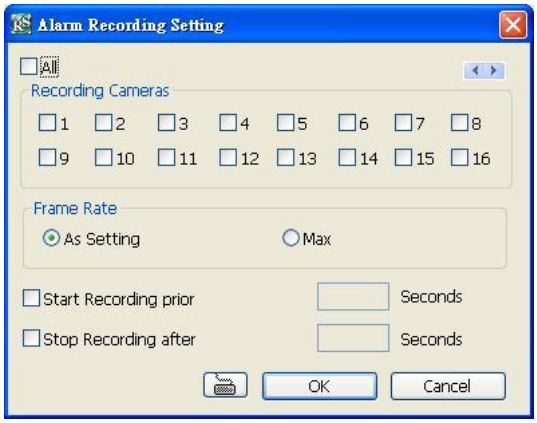
To Setup FTP Setting

1. Next to the File Transmission via FTP check box, click **Detail**.
2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
3. In **Number of Pic** text box, enter the number of sequence images that want to send when file is transmitting. The maximum number of picture can be transmitted are 16.
4. In **Upload image when sensor is triggered**, select the camera that the images will be capture and send when the sensor is triggered.
5. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



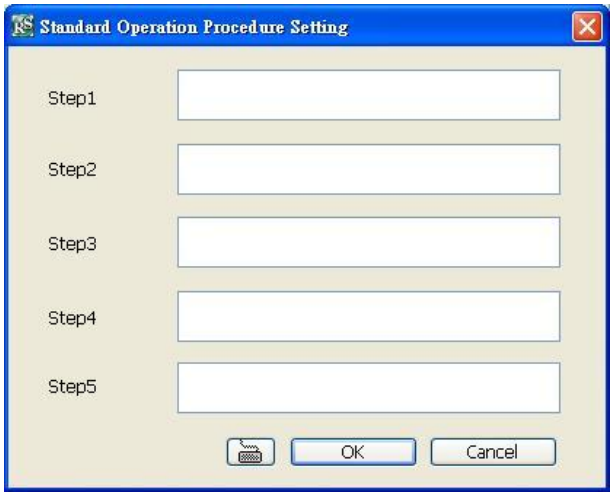
To Setup Alarm Recording Setting

1. Next to the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed.
4. In the **Stop Recording after** text box, set the number in second for the program to continue recording after the alarm has ended.
5. Click **OK** to accept the new settings and **Cancel** to exit without saving.



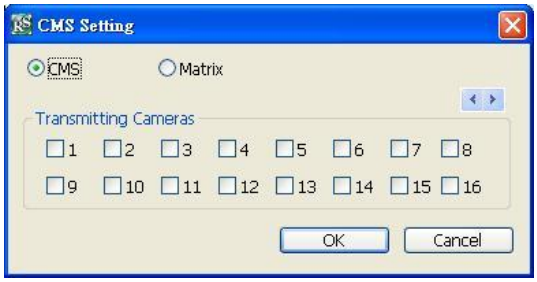
To Setup Alarm SOP

Next to the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated, the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.



To Setup CMS Setting

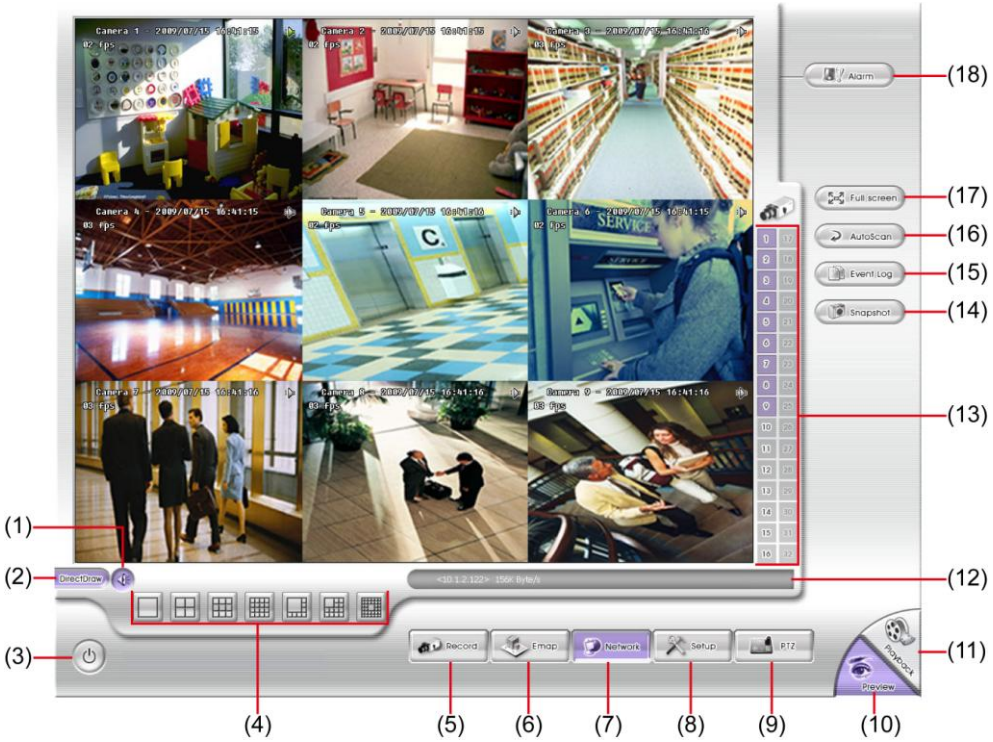
Next to the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.



6.2 Familiarizing the WebViewer PTZ Buttons

Name	Function
(1) Direction buttons	Adjust and position the focal point of the PTZ camera. Click the center to pan automatically.
(2) Select PTZ	Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.
(3) AutoPan Groups	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Camera preset position number	Move the PTZ camera to the preset point.
(5) Zoom +/-	Zoom in and out the image.
(6) Focus +/-	Adjust the focus manually to produce clear image.

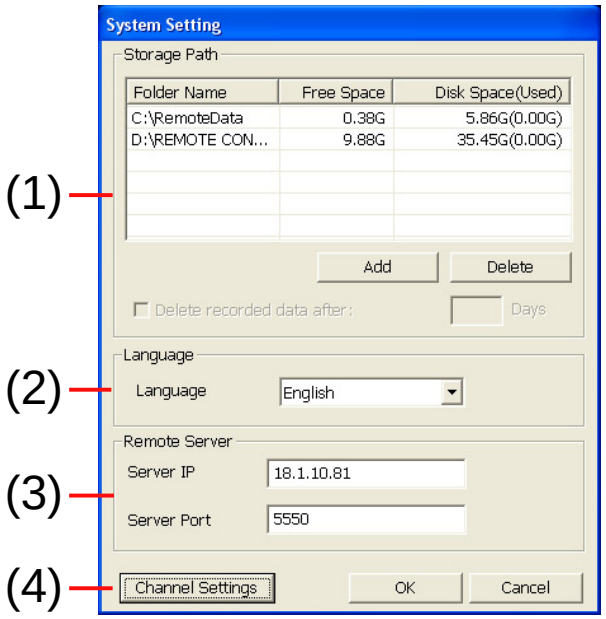
6.3 Familiarizing the Remote Console Buttons



Name	Function
(1) DirectDraw	Enhance the video quality.
ⓘ Not all graphic cards can support this function.	
(2) Exit	Close the Remote Console.
(3) Volume	Enable/disable the sound.
(4) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
ⓘ If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode. To change the video quality, right-click on the screen and select between High or Normal.	
(5) Record	Start/stop video recording.
(6) Emap	Display the map in each area, the camera/sensor/relay location and the warning event. (see also Chapter 3.6)
(7) Network	Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection.
(8) Setup	Configure the Remote Console setting. (see also Chapter 7.3.1)
(9) PTZ	Access PTZ control panel. Beside PTZ camera, DVR system also support mega pixel IP camera.(see Chapter 7.3.2)
(10) Preview	Switch to Preview/Advanced mode. This allows you to view live camera display.
(11) Playback	Switch to Playback mode. This allows you to view the recorded video file. (see Chapter 7.4)
(12) Status Bar	Display the current date, time and hard disk free space.
(13) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(14) Snapshot	Capture and save the screen shot either in *.jpg or *.bmp format.
(15) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(16) Auto Scan	Click it to start channel auto cycle display.
(17) Full screen	Use the entire area of the screen to only display the video.To return, **Right** click the mouse or press **ESC** on the keyboard.
(18) Alarm	Alert and display warning info. Only Administrator-level can reset and turn on, off and trigger the Sensor and Relay by right-clicking the item in the Sensor and Relay list.

6.3.1 To Setup Remote Console Setting

Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



(1) Storage Path

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path.

By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Language

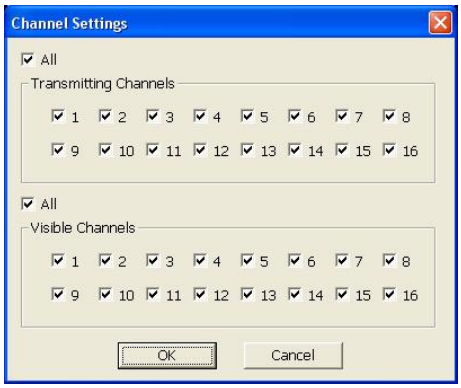
Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

(3) Remote Server

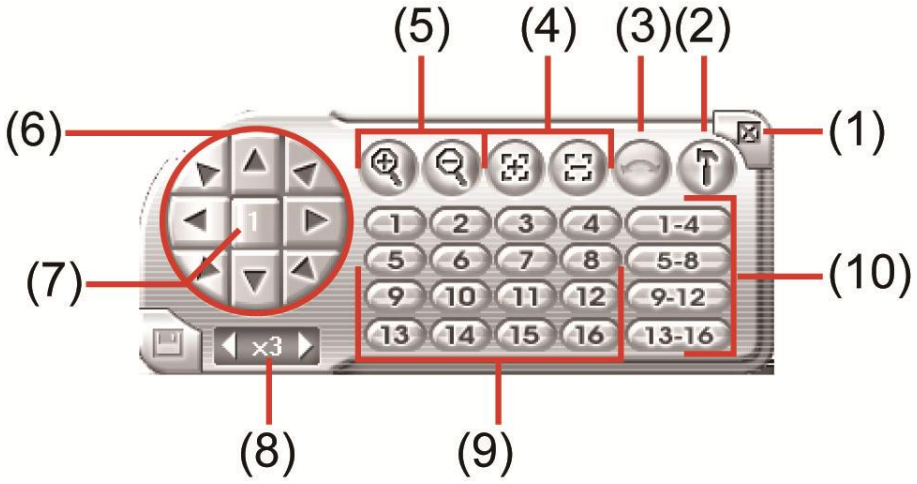
Enter the DVR Server IP and Port number.

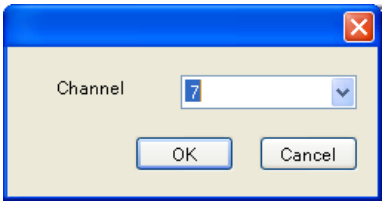
(4) Channel Settings

The numbers from 01 to 16 represent the camera ID. In Transmitting Channels section, enable the camera number to receive the camera signal from the server. In Visible Channels section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.



6.3.2 Familiarizing the Buttons in PTZ Camera Controller



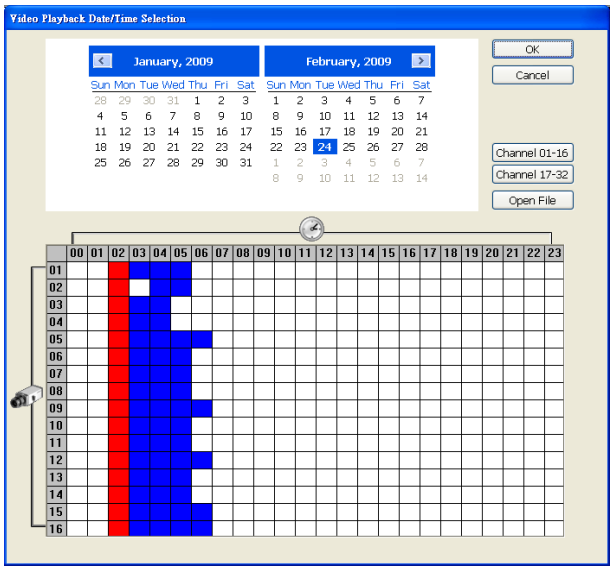
(1) Close	Exit PTZ camera controller.
(2) Setup	Select the PTZ camera channel. 
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera.
(7) Camera ID panel	Display the PTZ camera number that is being operated.
(8) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(9) Camera preset position number	Move the PTZ camera to the preset point.
(10) Group AutoPan	Select to automatically operate PTZ camera in group.

6.4 Using the Remote Playback

To use this feature, first you need to select the source of the file. In the Select Playback Mode dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded in the DVR server. When you choose Remote Playback, select **RealTime Playback** if your internet bandwidth is fast and big enough, otherwise choose **Download and Playback**.

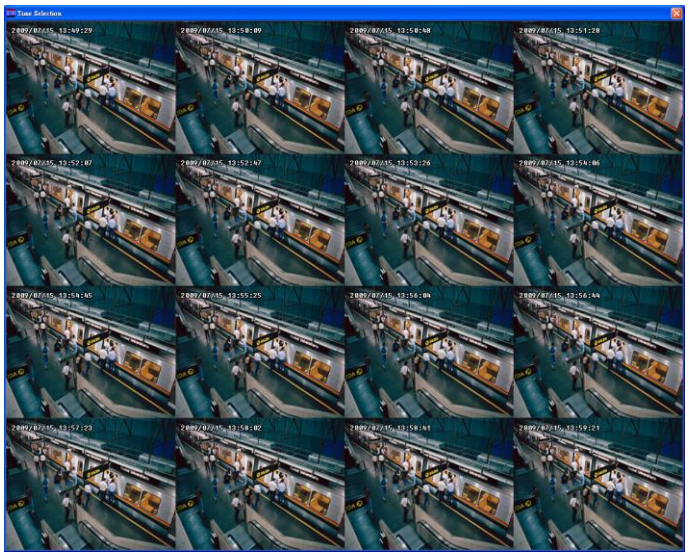
Click **OK** to proceed and **Cancel** to void this operation.

In the Video Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number. To switch to channel group click **Channel 01-16** and **Channel 17-32** button. To playback the record file during Day Light saving period, enable **Day Light Saving**.

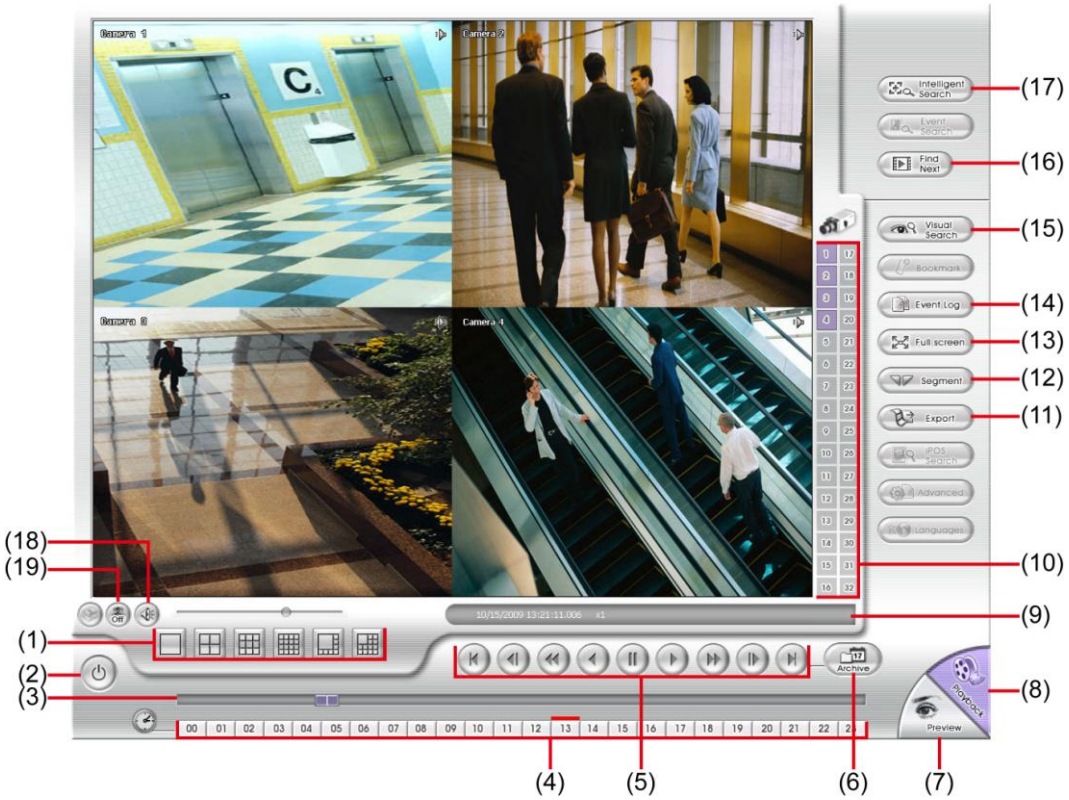


To Make a Selection:

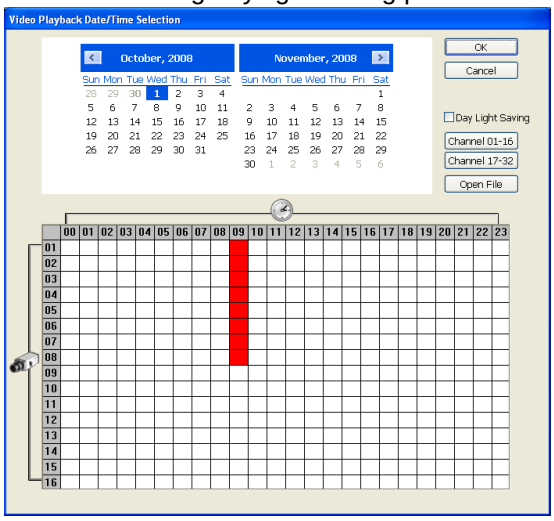
1. Select the date in the calendar. Use ◄ and ► buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. You can only select one block when you choose Download and Playback.
3. Click **OK** to proceed and **Cancel** to void this operation.
4. If you select Download Playback and after making the selection, the system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download and open (see also Chapter 7.4.2).



6.4.1 Familiarizing the Local Playback Buttons



Name	Function
(1) Split Screen Mode	Select from 6 different split screen types to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.
	- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode. - To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.
(2) Exit	To close the application.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
	The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.
(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, or 1/16x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − Also, user can open the recorded file from certain location by click **OPEN FILE** button − Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar. − Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

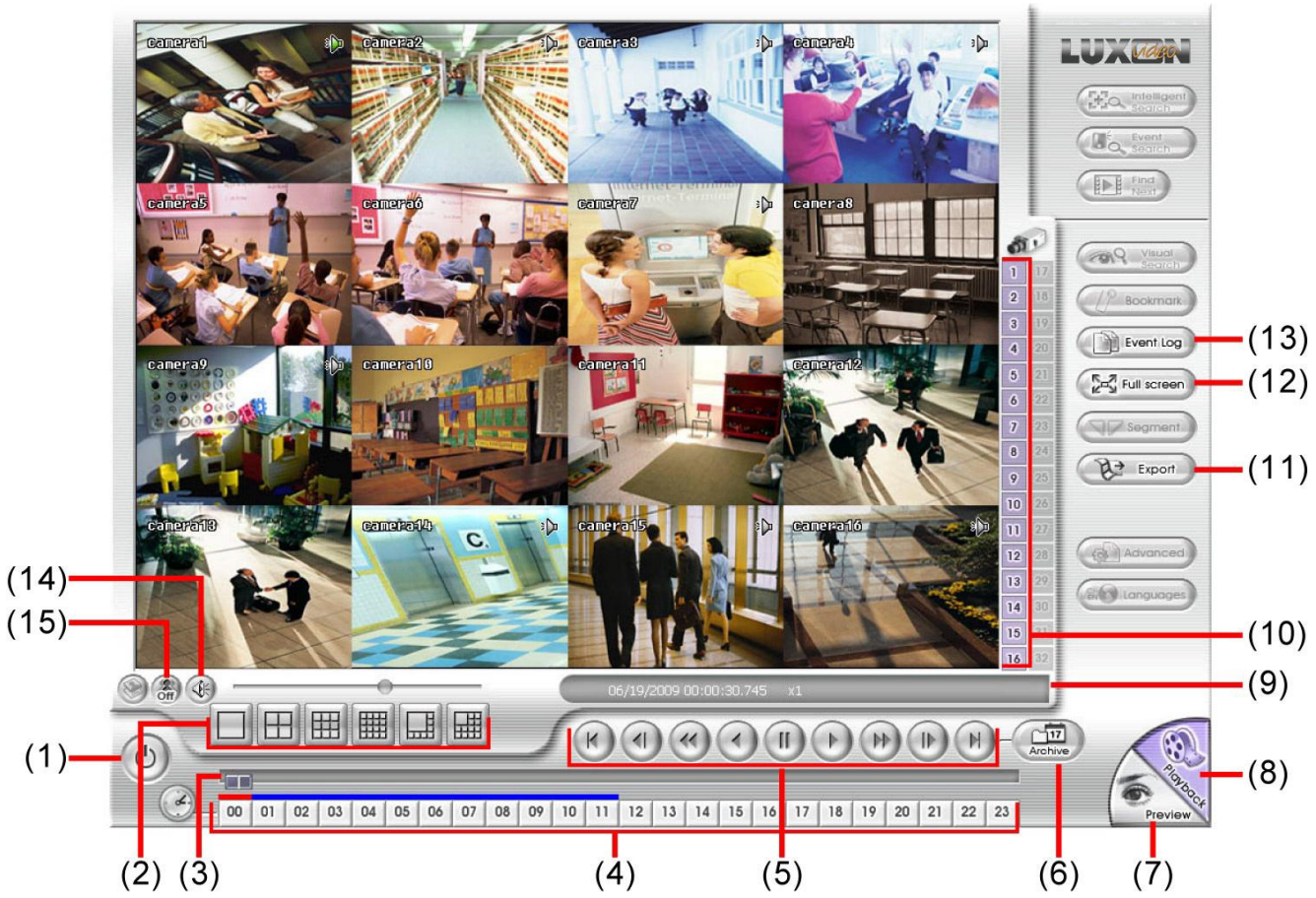
The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Preview	Switch to Preview mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the recorded date, time and play speed.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	Export includes Snapshot, Print, Output Video Clip, and Backup function. ▪ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ▪ **Print:** Print the screen shot. ▪ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 3.7). ▪ **Backup:** Save the playback file to USB device or DVD-ROM disk(see also Chapter 4.6 Backup Setting)
(12) Segment	Keep a portion of the recorded video you want (see also Chapter 3.7).
(13) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(14) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(15) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 3.9)
(16) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(17) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.11).

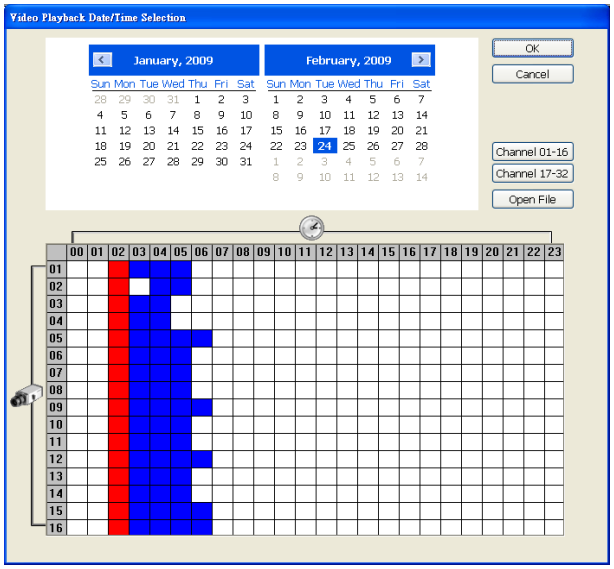
The Visual and Intelligent search only available when the remote site is recording and playback from remote local hard disk.

(18) Audio	Enable/disable audio play
(19) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

6.4.2 Familiarizing the RealTime Playback Buttons

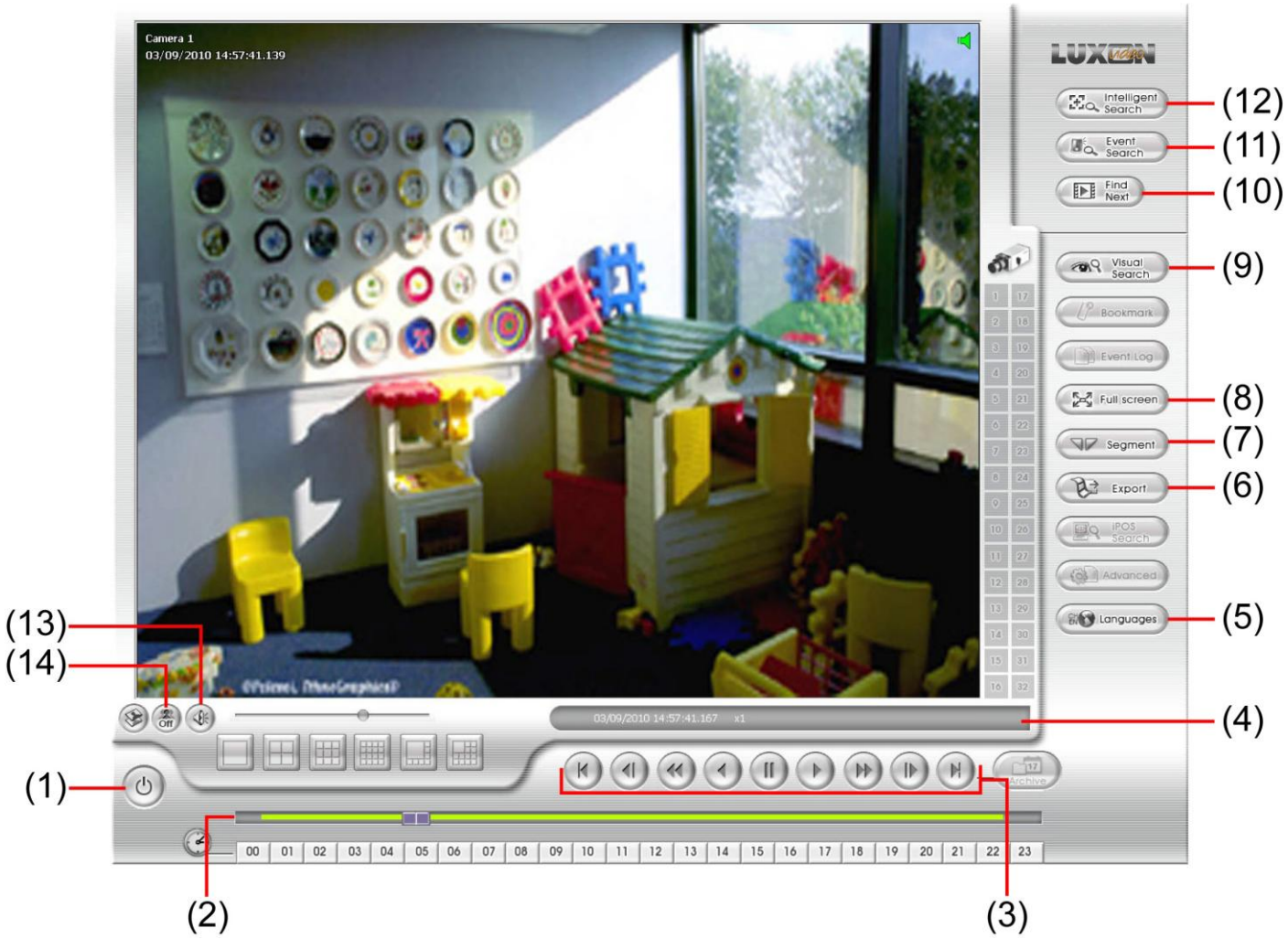


Name	Function
(1) Exit	Close the program
(2) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera.
To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.	
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.	
(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/6x, 1/8x, or 1/16x **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. − Also, user can open the recorded file from certain location by click **OPEN FILE** button − Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar. 
(7) Preview	Switch to Preview/Advanced mode.
(8) Playback	Switch to Playback mode. This allows you to view the recorded video file.
(9) Status bar	Display the recorded date, time and play speed.
(10) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(11) Export	▪ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format.
(12) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(13) Event log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(14) Audio	Enable/disable audio play
(15) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

6.4.3 Familiarizing the Download and Playback Buttons



Name	Function
(1) Exit	Close the program
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/6x, 1/8x, or 1/16x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(4) Status bar	Display the recorded date, time and play speed.
(5) Language	Select the language of function tips
(6) Export	Export includes Snapshot, Print, and Output Video Clip function. ▪ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ▪ **Print:** Print the screen shot. ▪ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 3.7).
(7) Segment	Keep a portion of the recorded video you want (see also Chapter 3.7).
(8) Full screen	Use the entire area of the screen to only display the video. To return, press the right

Name	Function
	button of the mouse or **ESC** on the keyboard or click the arrow icon. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(9) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 3.9)
(10) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(1) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS). (See also Chapter 3.10)
(2) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 3.11)
(13) Audio	Enable/disable audio play
(14) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.

6.5 Using HandyViewer to Access DVR server

Users can use a mobile phone to access the DVR through Internet. Make sure your mobile phone support IE browser and is connected to the internet. To access the DVR server, open IE browser and enter http://enter server IP or domain name here/mobile. You can see the latest screen shot. Click **<<** **>>** to change the channel or camera and **Refresh** to reload new screen shot.

6.6 Using PDAViewer to Access DVR Server

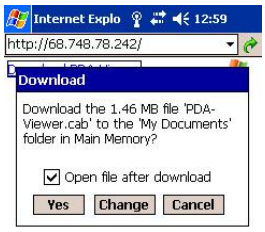
Users can also use a PDA to access the DVR through Internet. Make sure your PDA support IE browser and is connected to the internet. To use this feature, you need to install the PDAViewer software either thru ActiveSync connection or download it from the internet. Please check if your PDA meets the 2 requirements below.

OS:	**MS Windows CE 4.0, PocketPC 2002/2003, Mobile 5 PDA version**
CPU:	**ARM architecture**

6.6.1 To install PDAViewer from the Internet

1. Make sure you are connected to the internet.
2. Open the web browser and enter the server IP. Then click the hyperlink Download PDAViewer.

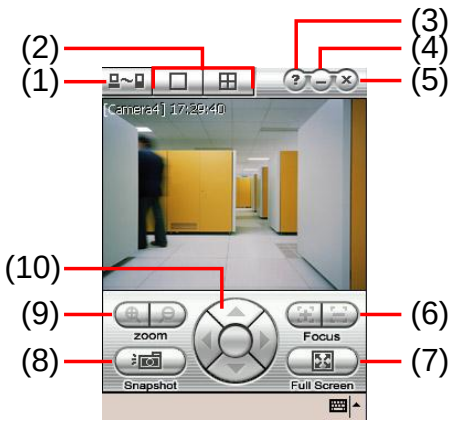
3. When the Download dialog box appears, enable Open file after download and click **Yes**.

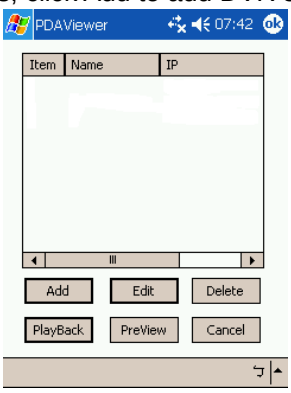
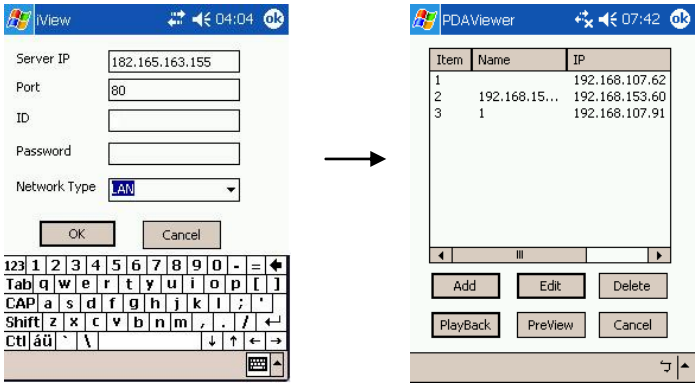


4. After the installation, the PDAViewer icon will appear in the Programs list.

6.6.2 To Use the PDAViewer

1. Run the **PDAViewer** in the Programs.
2. Familiarizing the PDAViewer buttons.



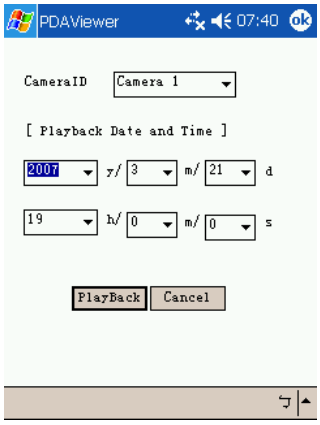
Name	Function
(1) Connect	Hook up to the DVR server. Make sure you are connected to internet. When the iView screen appears, click Add to add DVR server.  Enter the server IP, port, user ID, password and select the connection type. Then, click **OK**.  User can playback the recorded video from remote DVR server in PDAViewer.(see Chapter 7.6.4)
(2) Split Screen Mode	Select between 2 screen display types. It also allows you to switch and view different camera number or channels.
(3) About	Display the PDA-Viewer software version.
(4) Minimize	Reduce the size to taskbar.
(5) Exit	Close the PDA-Viewer.
(6) Focus	Adjust the focus of PTZ camera to produce clear image.
(7) Full Screen	Use the entire screen to only display the video.
(8) Snapshot	Capture and save the screen shot in *.bmp format.

Name	Function
(9) Zoom	Zoom in and out the PTZ camera image.
(10) Direction buttons	Adjust and position the focal point of the PTZ camera.

3. To change the video quality, enable/disable audio, and select to display different camera, tap on the video screen longer the popup menu will appear.

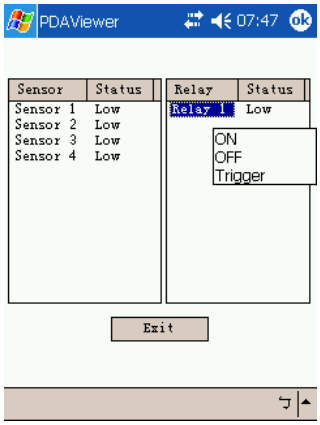
6.6.3 To Playback in PDAViewer

1. Run the **PDAViewer** in the Programs.
2. Hook up to the DVR server.
3. Click **Connect** icon and select the DVR server
4. Click **Playback** to enter playback option screen
5. Select the **camera**, **data**, and **time**
6. Click **Playback** to start playing the recorded video



7. While playback, user can view and change status of I/O devices
8. On the playback screen, tap on video screen longer the pop up menu will appear
9. Select the **Remote IO**

10. The sensor and relay devices will list as below:



11. User can change the relay status. Select the relay and tap on video screen longer the popup menu will appear, and then, select the status (ON, OFF, Tigger)

6.6.4 Using JavaViewer to Access DVR Server

Using the mobile phone within Symbian Smart Phone OS to access the DVR through Internet. Make sure your mobile phone supports Symbian Smart Phone OS and can be connected to the internet. To use this feature, you need to install the JAVAViewer program that it can be downloading it from the DVR server through the internet.

To install JAVAViewer from the DVR Server

1. Open the web browser and enter the DVR server IP (http://DVR server IP: port/JAVA-Viewer.html). Then click **Connect**.
2. When the Download screen appears, select **JAVA-Viewer.jad** and download it to your mobile phone.
3. After the installation, the JAVA-Viewer will be in your mobile phone system. To find the JAVA-Viewer program where is located, please refer to your mobile phone user's manual.

6.6.5 To Use the JAVA-Viewer

1. Run the JAVA-Viewer program.

2. Enter the DVR IP address, port number, user ID, and password. Please refer to your DVR server setting for that information.

3. And then, select the Connect to connect to DVR server.

4. Click **Yes** to accept the data from DVR server.

5. When connection is success, you will see the camera video on the screen.

6. To switch to different camera view, select menu and select the channel.

7. The JAVA-Viewer support PTZ control function, you can refer to **Help** file for detail function control key. Select **menu** and go the way down to select the **Help** file.

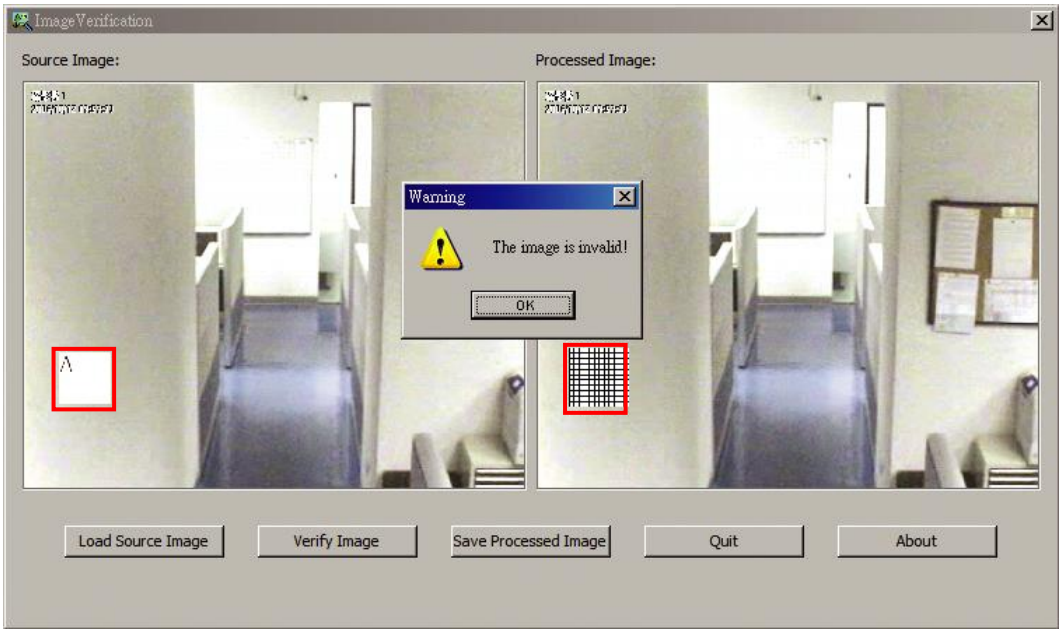
→

Chapter 7 Image Verification

ImageVerification is a watermark-checking program to identify the authenticity of a saved image (e.g. by snapshot). This program can only verify uncompressed bmp image files.

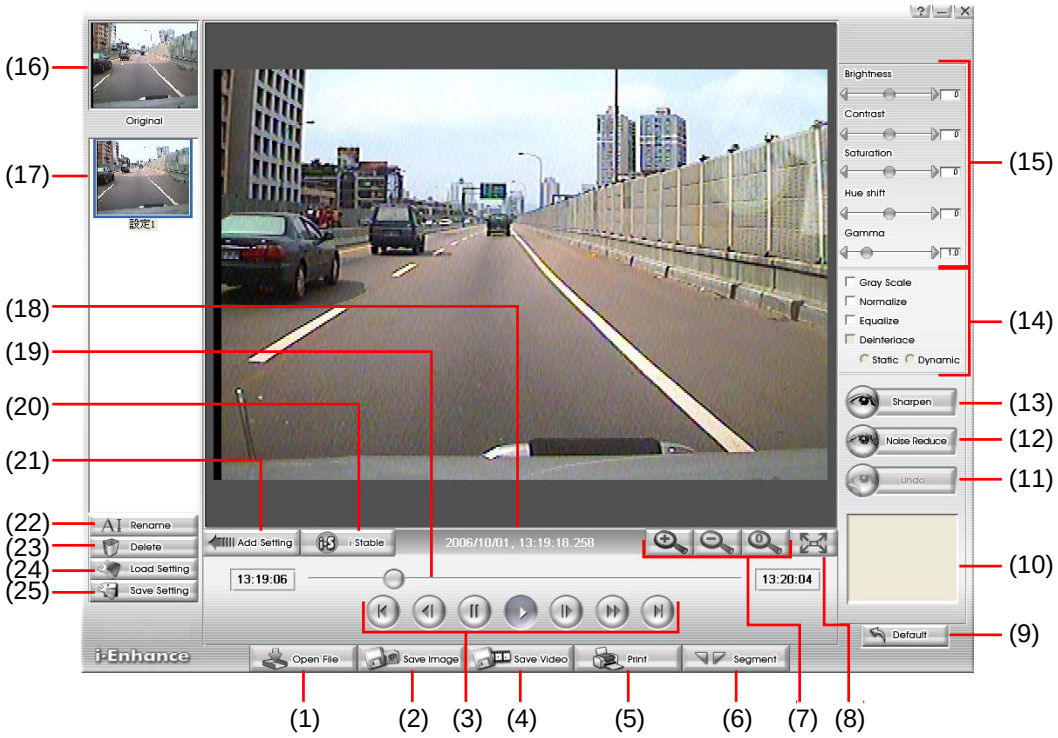
7.1 To Run the ImageVerification program

1. Click **Start**>**Programs**>**DSS**>**ImageVerification**.
2. In the ImageVerification screen, click **Load Source Image** and locate the image source.
3. Click **Verify Image** to begin the process.
4. Check the result in the Processed Image screen. If the picture is unmodified, the image in the Source Image and Processed Image screen would be exactly the same. If the picture is being modified, a warning dialog box would prompt you and the modified area is highlighted.



Chapter 8 iEnhance

The bundled iEnhance is a video editing tool and can only be used with *.dvr video file. It allows you to adjust the video picture quality, segment and save the wanted portion of the video, zoom in and out the image, and print or save the screen shot. You can also save the setting and apply it on other files.



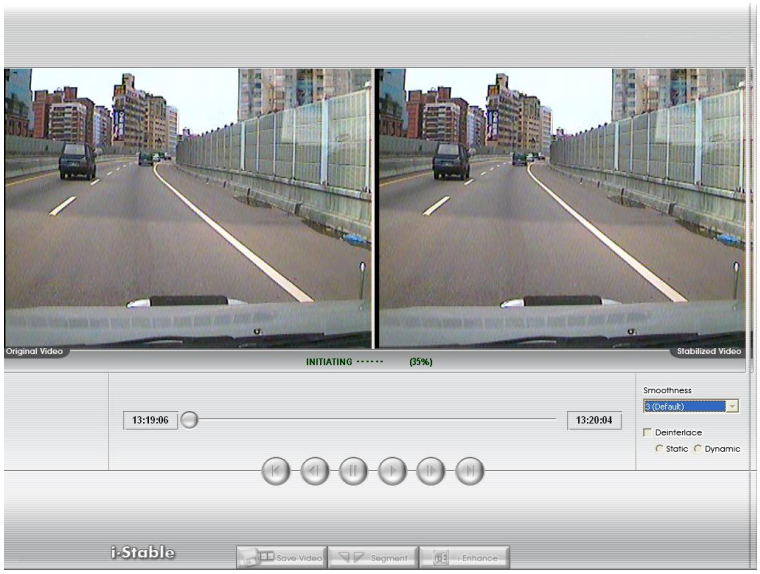
Name	Function
(1) Open File	Access *.dvr video file.
(2) Save Image	Capture and save the screen shot in *.bmp format.
(3) Playback Control Buttons	**Begin:** Move to the beginning of the video file. **Previous:** Go back to the previous frame. **Pause:** Briefly stop playing the video file. **Play:** Play the video file. **Faster:** Play the video file at faster speed **Next:** Go to the next frame. **End:** Go to the end of the video file.
(4) Save Video	Save the edited or segmented video in *.avi format.
(5) Print	Print the screen shot.
(6) Segment	Mark the beginning and the end of the wanted portion of the video. Two triangle marks will appear on the slider. To cancel video segmentation, click this button again.
(7) Zoom Buttons	Enlarge, reduce, and set the image back to normal size.
(8) Full Screen	Use the entire screen to only display the video.
(9) Default	Set the video back to original state and delete all the changes in the history box.
(10) History Box	List all the actions.
(11) Undo	Delete the last action.
(12) Noise Reduce	Adjust the softness and repair the damaged colours.
(13) Sharpness	Improve the overall image by enhancing edges. This gives the image more depth.
(14) Effects	• **Gray Scale**: convert the image into black and white (monochrome). • **Normalize:** adjust the brightness intensity. • **Equalize:** automatically adjust the images that are too dark. • **De-interlace:** smooth out the overlying frames. • **Static:** de-interlace for motionless scene. • **Dynamic:** de-interlace for moving scene.
(15) Picture Adjustment	Adjust the Brightness, Contrast, Saturation, Hue and Gamma.

Name	Function
(16) Original Screen	Display the original state of the image.
(17) Temporary Setting Block	Display the sample settings. Click the sample to apply the setting on the current video.
(18) Status Bar	Display the date, and time of the video.
(19) Progress Bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(20) iStable	To reduce the jolt in the recorded video.(also see Chapter 9.1)
(21) Add Setting	Include the new setting to the temporary setting block.
(22) Rename	Change the name of the selected setting in the temporary setting block.
(23) Delete	Permanently remove the selected setting in the temporary setting block.
(24) Load Setting	Call the saved settings.
(25) Save Setting	Store the settings in the temporary setting block.

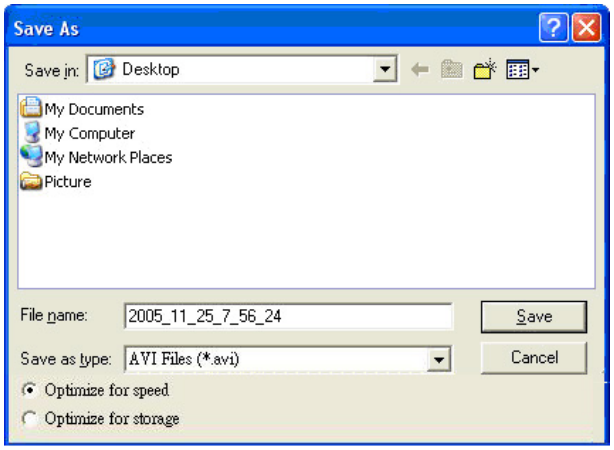
8.1 To Use iStable

The iStable function can reduce the jolt in the recorded video.

1. Click **Open File** button and select the recorded video.
2. And then, click **iStable** button.
3. iStable windows will show up.
4. Select the **smoothness level** – 1(Low), 2, 3, 4, and 5(High). The default value is 3.
5. Click **Play** button, and then i-Stable function will start to initial the recorded video.
6. When the initialize is done, user will see the original and stabilized recorded video play in two windows.



7. While the video is playing, user can select a portion of video to play and save. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark. And, Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.
8. Click **Save Video** button to save the wanted clip.
9. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video compress mode – **Optimize for speed** or **Optimize for storage**.



10. To switch back to iEnhance interface, click **iEnhance** button

Chapter 9 Web Tools

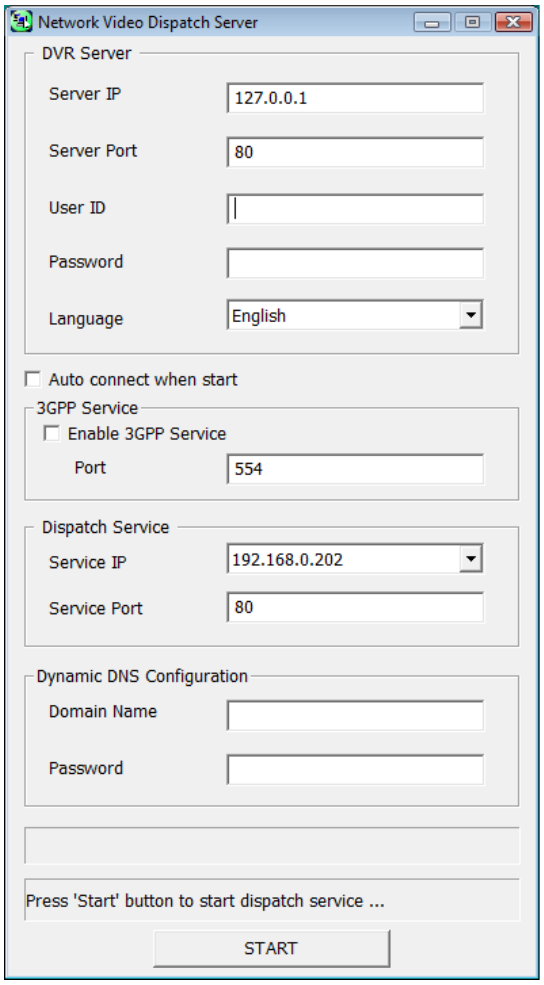
The bundled Web Tools includes Dispatch Server and Remote Backup program. To install Web Tools, place the CD into the CD-ROM drive then click **Install Web Tools**.

9.1 Dispatch Server

Dispatch is designed to reduce the network traffic of the DVR server. Instead of connecting directly to the DVR server, the client can connect to the computer that is connected to the DVR server using the Dispatch program.

To Run Dispatch program:

1. Make sure you are connected to the internet.
2. Click **Start**>**Programs** >**DVR** >**Web Tool** > **iDispatch Server**.
3. In the DVR Server section, enter the DVR server IP, port, user ID and password. You can also select to display the language you prefer.
4. **Auto connect when start**
   Enable to automatically connect the dispatch server when start up
5. **3GPP Service**
   Enable to allow user using 3GPP service to receive video stream from Dispatch server. The **Service Port** must same as RTSP port of 3GPP on DVR server.
6. In the **Dispatch Service** section, if you have installed more than one network card, select the Service IP number.
7. In the **Dynamic DNS Configuration** section, enter the DNS server Name and Password. The DNS server can be the remote storage server for sharing the DVR system loading.
8. Click **START** to connect.

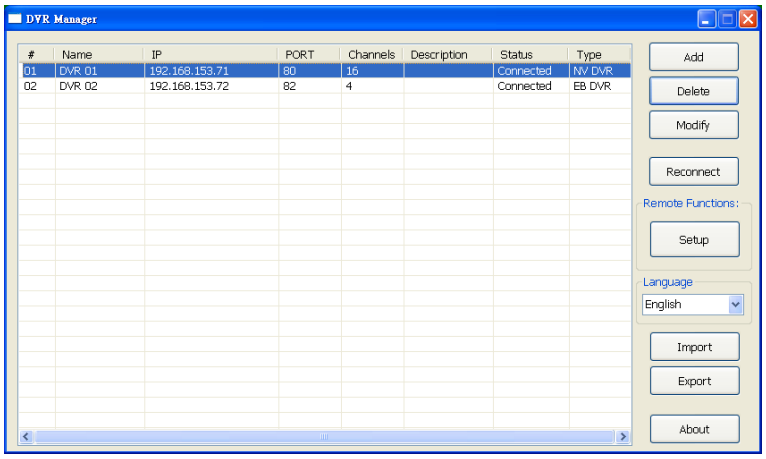


9.2 Remote Setup

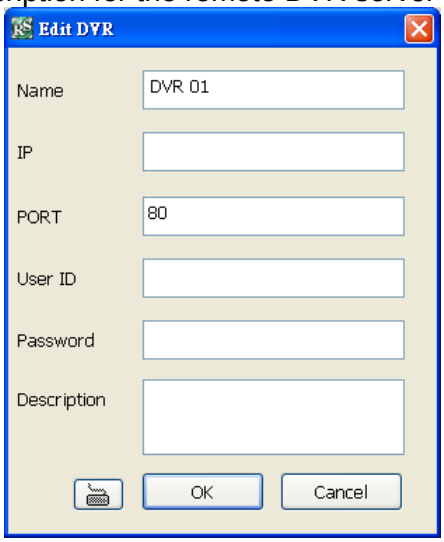
Remote Setup is a tool for configuring DVR server from remote site. To install Remote Setup application, insert the Installation CD into CD-ROM drive and click **Web Tools**. After installation, click to start the Remote Setup application.

9.2.1 To Add DVR server

User need to add a DVR server and make connection in order to setup remote DVR server.



1. Click **Add**
2. In Edit DVR windows, fill in the following items:
   - **Name:** give a name for remote DVR server for easy managing
   - **IP:** fill in remote DVR server's IP address
   - **Port:** the port use to connect to remote DVR server. The port number is same the WebViewer port on the remote DVR server. The default is 80.
   - **User ID:** fill in the remote DVR server's login account
   - **Password:** fill in the remote DVR server's login password
   - **Description:** fill in a short description for the remote DVR server



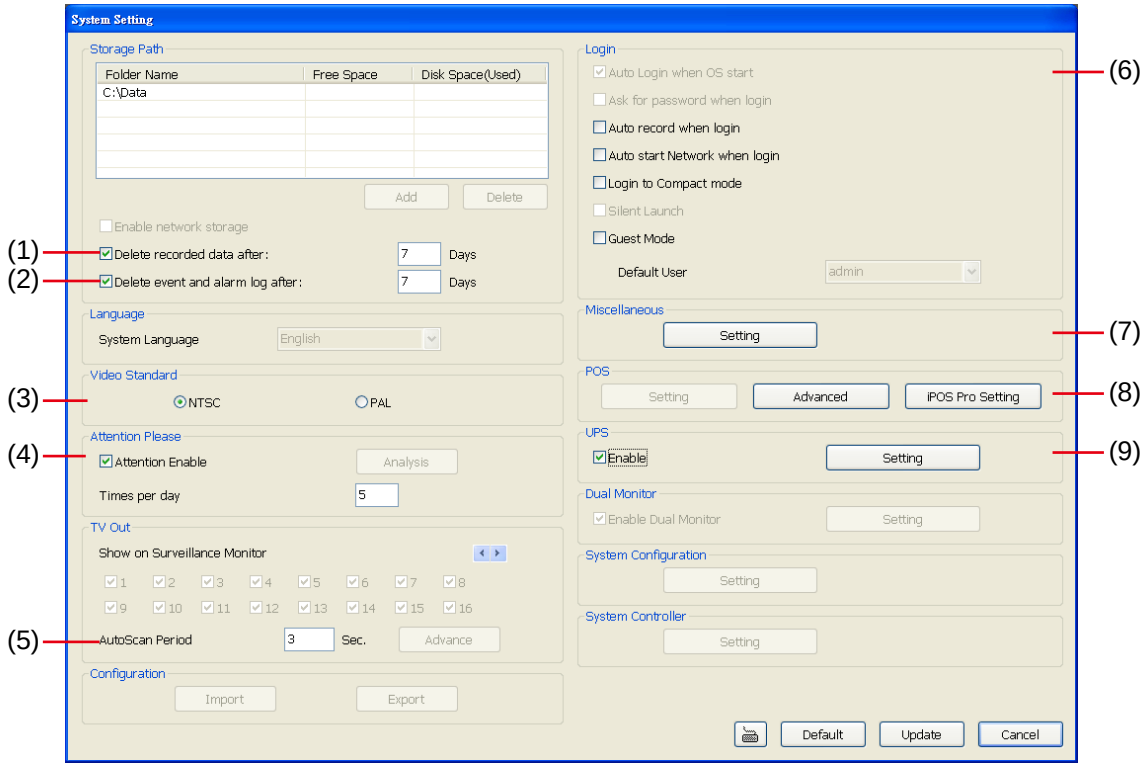
3. Click **OK** to complete adding remote DVR server.
4. The added DVR server will be listed and auto connects to DVR server.
5. Once the connecting is success, user can start to configure DVR server.
6. When connection is lost, click **Reconnect** to connect again.
7. To modify or delete the added DVR server, select the DVR server from listing and click **Modify** to change the setting and click **Delete** to remove the DVR server.
8. User also can import the setting by clicking **Import** button. To save the setting to local hard disk, click **Export** button.

9.2.2 To Setup Remote DVR Server

Select the DVR server from listing and click **Setup** to configure remote DVR server.

9.2.2.1 System Setting

In the System Setting windows, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

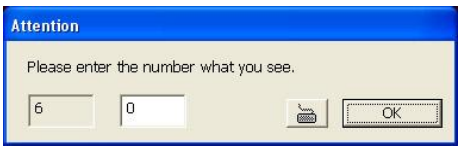
If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(4) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box.



When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.

(5) AutoScan Period

Set the TV out display time gap from 3 to 10 sec. before it switches to the next camera.

(6) Login

Enable the conditions in Login section you want the system to automatically carry out.

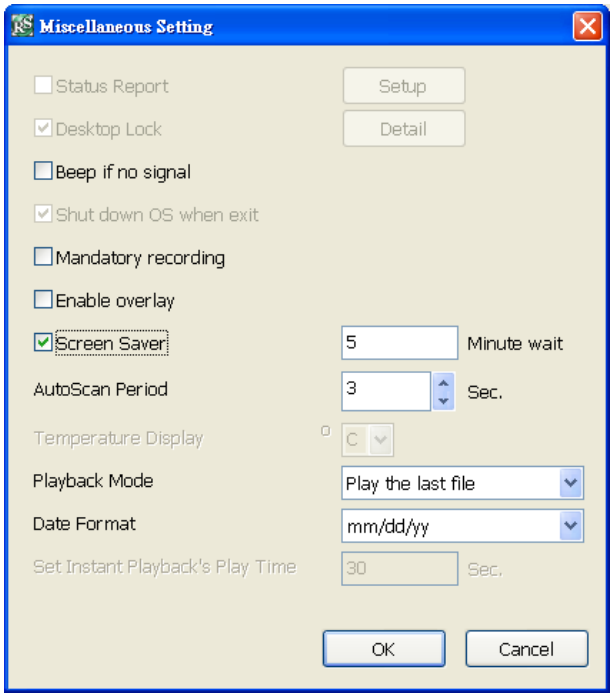
- **Auto record when login**
  Automatically start video recording when the DVR is executed.
- **Auto start Network when login**
  Automatically connect to network when the DVR is executed.
- **Login to compact mode**
  Switch to compact mode directly when the DVR is executed.
- **Guest Mode**

Automatically log in Guest mode when the DVR is executed. In guest mode, the functions are limited to

preview and playback only.

(7) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.



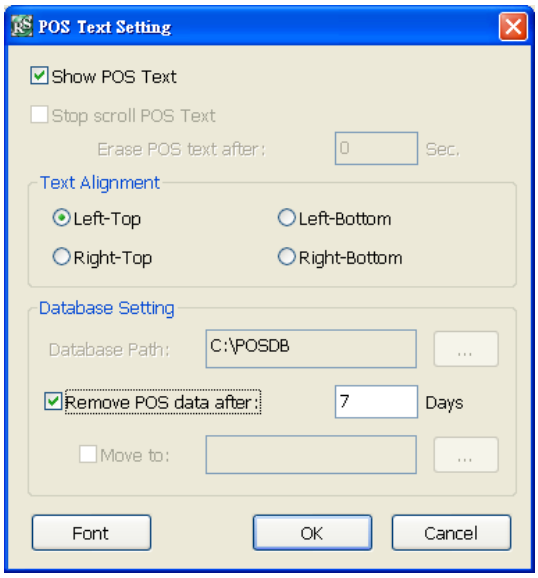
- **Beep if no signal**
  Make sound when the video signal is lost.
- **Mandatory Record**
  Always record video when software is running
- **Enable Overlay**
  To enhance video signal for better video quality.
- **Screen Saver**
  Set a period time to enter screen saver mode when system idle.
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Playback Mode**
  Select the mode of playback the video.
  - ✓ **Select date and time:** Select the date and time which user wants to playback.
  - ✓ **Play the last file:** Automatically playback the video from the last hour
  - ✓ **Instant Playback:** Automatically playback the video which has just recorded
- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode

(8) POS

■ **Advanced**

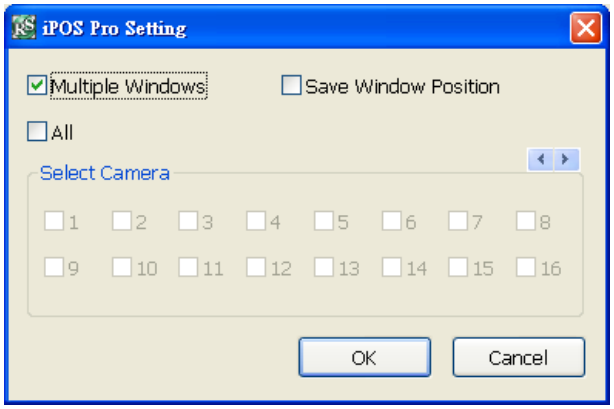
Set from which camera screen to display the data from the POS equipment. To set the text flow, color format, and POS database export, click **Advanced**.

1. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
2. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
3. To change the POS data font and color, click **Font**.
4. Mark **Remove POS data after** the POS data will be delete from DVR hard disk on the day that user has setup.



■ **iPOS Pro Setting**

Enable **Multiple Windows** for viewing multi-channels of iPOS live data. To save the iPOS live data window position on the preview mode, mark the **Save Window Position**. To select all channels, mark **All** check box.



(9) UPS (Uninterruptible Power Supply)

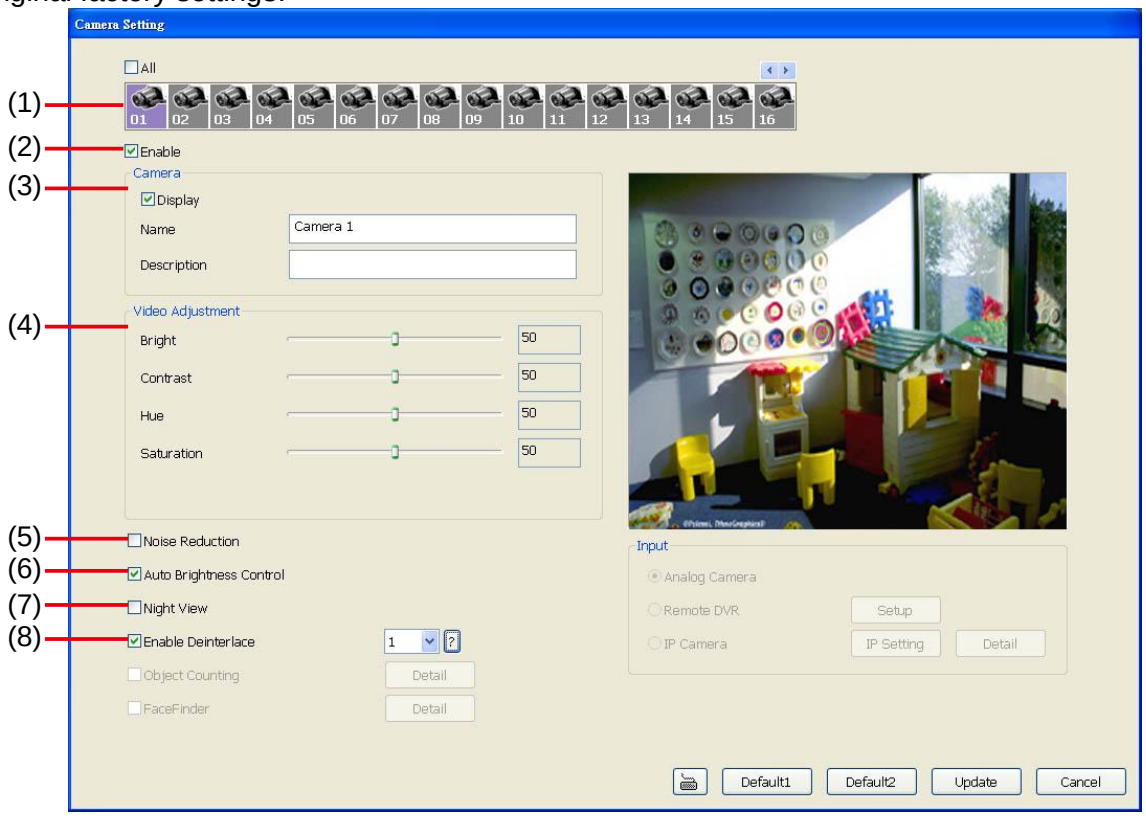
Protect the system from damaging, such as power surges or brownouts. This automatically gives time to close the DVR properly when the battery backup power has reached the Shutdown when capacity below percentage level setting.

The UPS device must be connected to your computer (refer to your UPS user's guide).

The UPS application must meet Windows XP or Windows Vista system requirements.

9.2.2.2 Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting window, click **Update** to save and apply the new settings, click **Exit** to exit without saving, and click **Default1/ Default2** to revert back to original factory settings.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

- **Display**

  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.

- **Name**

  Change the camera name.

- **Description**

  Add a short comment.

(4) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the selected camera.

(5) Noise Reduction

Reduce undesirable video signal and improve the quality of the video.

Noise Reduction uses lots of CPU resource. Please use this feature only if it is really necessary.

(6) Auto Brightness Control

Automatically adjust the brightness.

(7) Night View

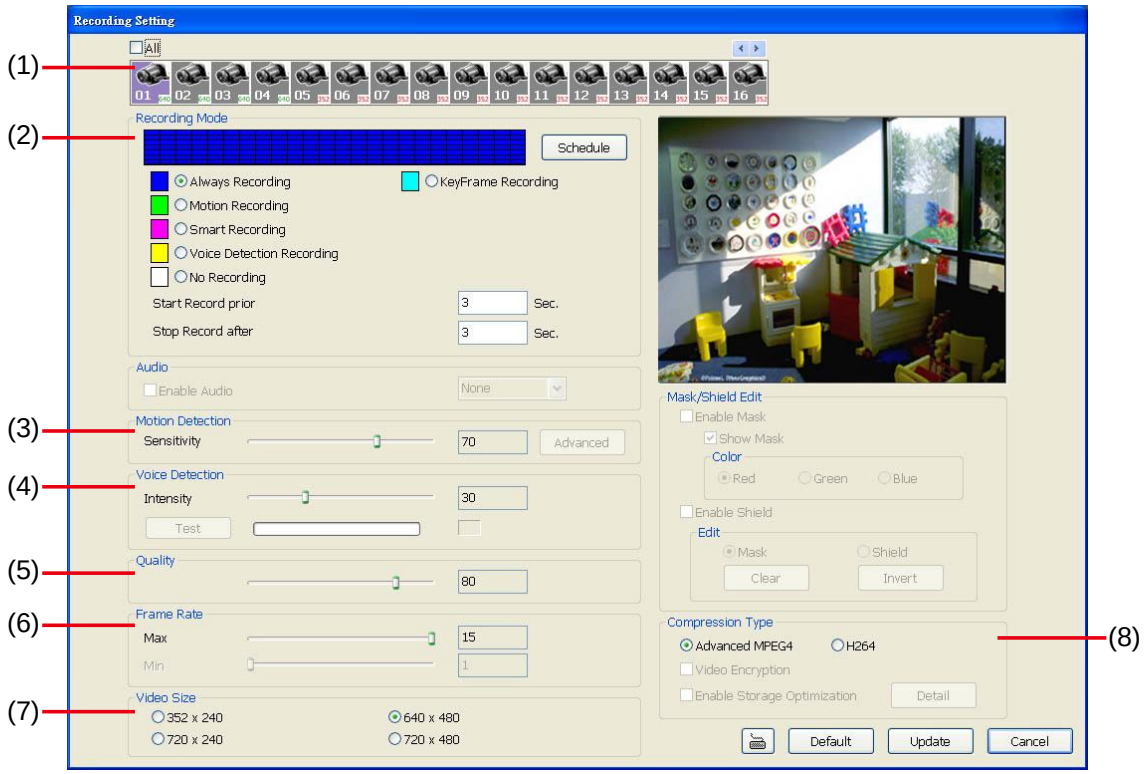
Automatically adjust the exposure to make the image more visible especially when the site is dark. You can only use this function when the ***Auto Brightness Control is enabled***.

(8) Enable Deinterlace

To enhance the video quality. Set the deinterlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

9.2.2.3 Record Setting

In the Recording setup window, click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory settings.

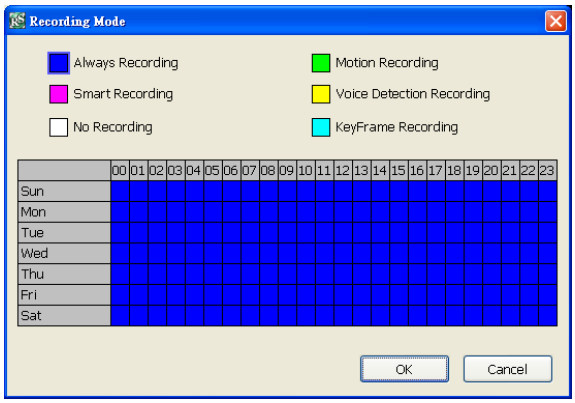


(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

(2) Recording Mode

The blocks from 00 to 23 represent the time in 24-hour clock. To record in full 24 hours, select the recording mode and click the ⊙ button. If you want to only record at a particular time, click the colored block beside the recording mode then click on the time blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.



The recording modes are listed below:

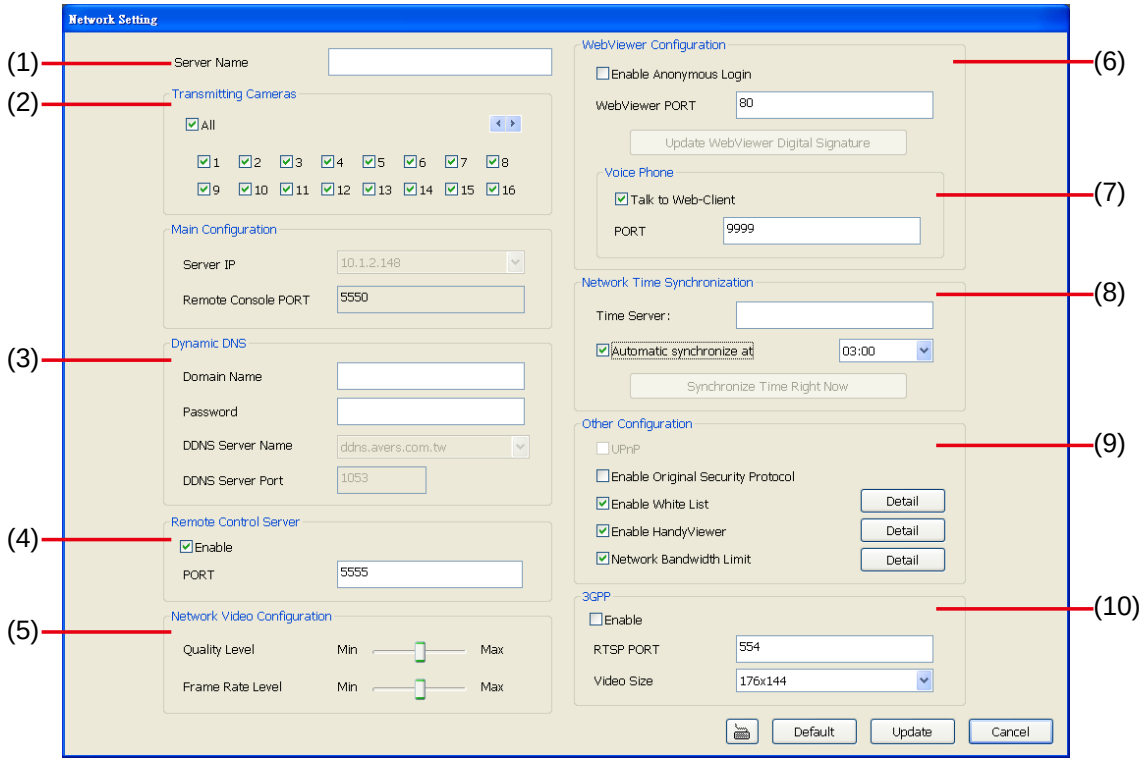
- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting. Set the maximum and minimum frame rate setting in (6) Frame Rate section.

- **Voice Detecting Recording**
  DVR system will record the sound when the voice exceeds the intensity value in Voice Detection setting.
- **No Recording**
  The system won't do any recording.
- **KeyFrame Recording**
  Only record one frame per second.

(3) Motion Detection
Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.
(4) Voice Detection
Adjust the intensity of the audio detector. The system detects sound when it exceeds the intensity value.
(5) Quality
Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.
(6) Frame Rate
Set the maximum number of frames to be recorded during motion and motionless state. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher the frame rate, it uses more hard disk space.
(7) Video Size
User can activate the **Enable Deinterlace** to enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(8) Compression Type
H264 is the latest and advanced video compression format that delivers better video quality and smaller file size but this uses more CPU resource. Advanced MPEG4 provides a standard for color picture compression rate.

9.2.2.4 Network Setting

In the Network Setting window, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory settings. For the network service ports that use by DVR server, please see Appendix A.



(1) Server Name
Assign a name for the DVR unit. Letters of the alphabet and numbers only.
(2) Transmitting Cameras
Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebCam, Remote Console, PDA Viewer and HandyViewer (still image). To select all the cameras, enable the **ALL** check box.

(3) Dynamic DNS (Domain Name System)

For information about Dynamic DNS options see http://www.luxonvideo.com/quickstart201.php and scroll down to the DynDNS Section.

(4) Remote Control Server

Enable/disable remote control from remote application (ex. CMS). Enter the remote accessing port in **Port** column.

(5) Network Video Configuration

Set up the video quality and frame rate for viewing and transmitting to the remote program. Scrolling adjust bar to set the **Quality level** and **FrameRate level**.

(6) WebViewer Port

Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password. The default of WebCam port is 80.

(7) Voice Phone

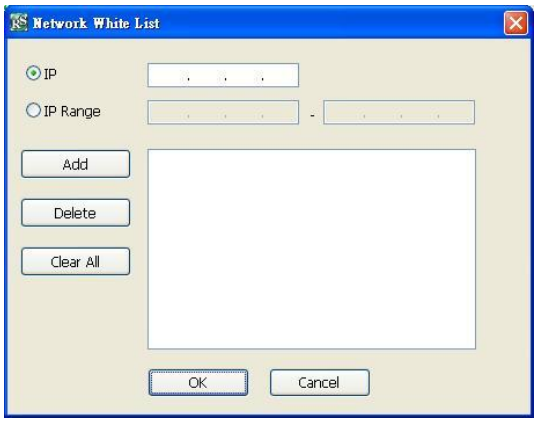
Voice Phone is a 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the DVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated. (See also Chapter 7.1 #6). The default port of voice phone is 9999.

(8) Network Time Synchronization

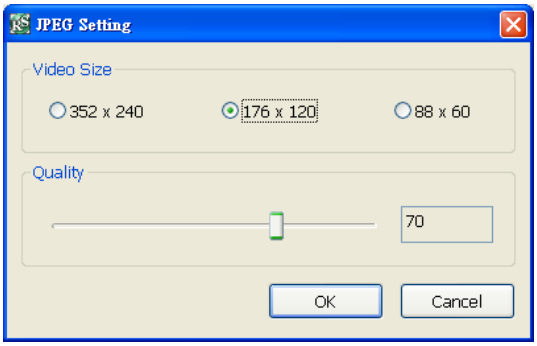
Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

(9) Other Configuration

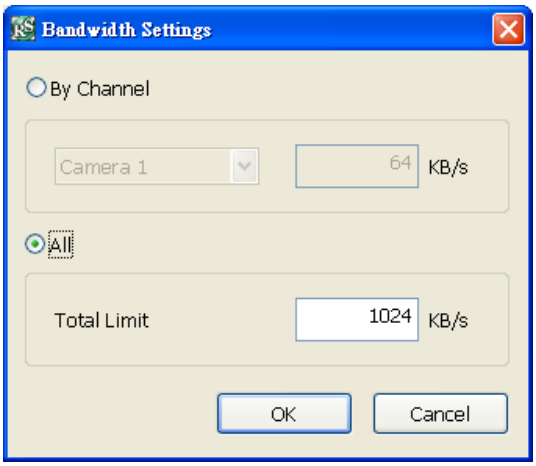
- **Enable Original Security Protocol**
  Enable new version DVR system to accept remote software with former version. For example, if user uses CMS version 7.5 and connect to DVR server with version 7.7, and then, user has to enable this option to make it work. It is due to that DVR system has some new security protocol in DVR with version 7.3 and newer version, and it's not compatible with old remote software.
- **Enable White List**
  An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.



- **Enable HandyViewer**
  Enable remote users to use a PDA or a mobile phone to access DVR server and select the video size and quality. (See also Chapter 7.5 and 7.6)

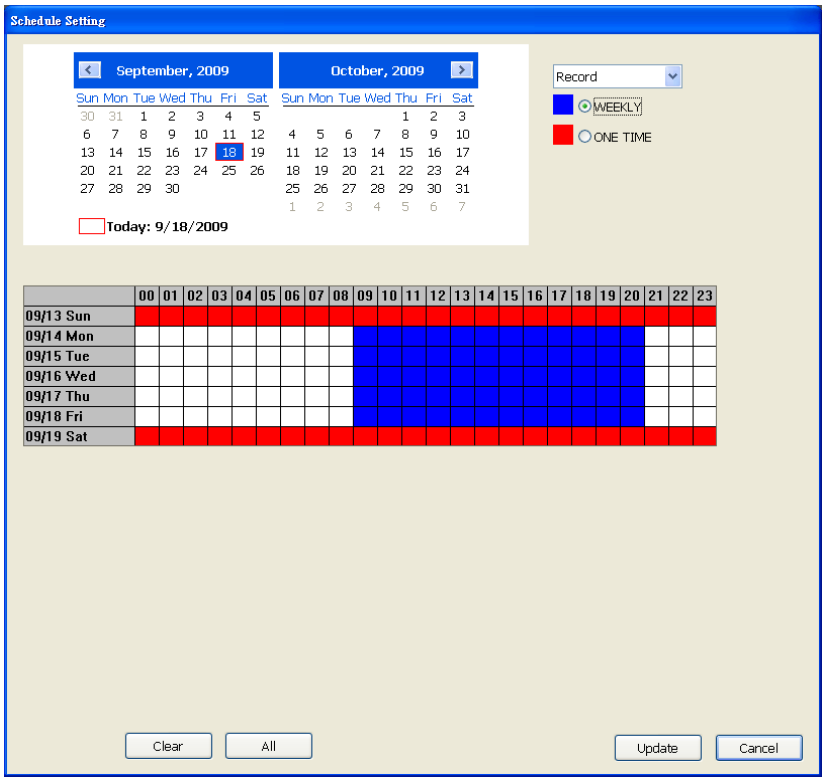


- **Network Bandwidth Limit**
  - ✓ **By Channel:** Set the network bandwidth by each channel.
  - ✓ **All:** Set the total network bandwidth consumption limit.



9.2.2.5 Schedule Setting

Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



To Set the Schedule Setting:

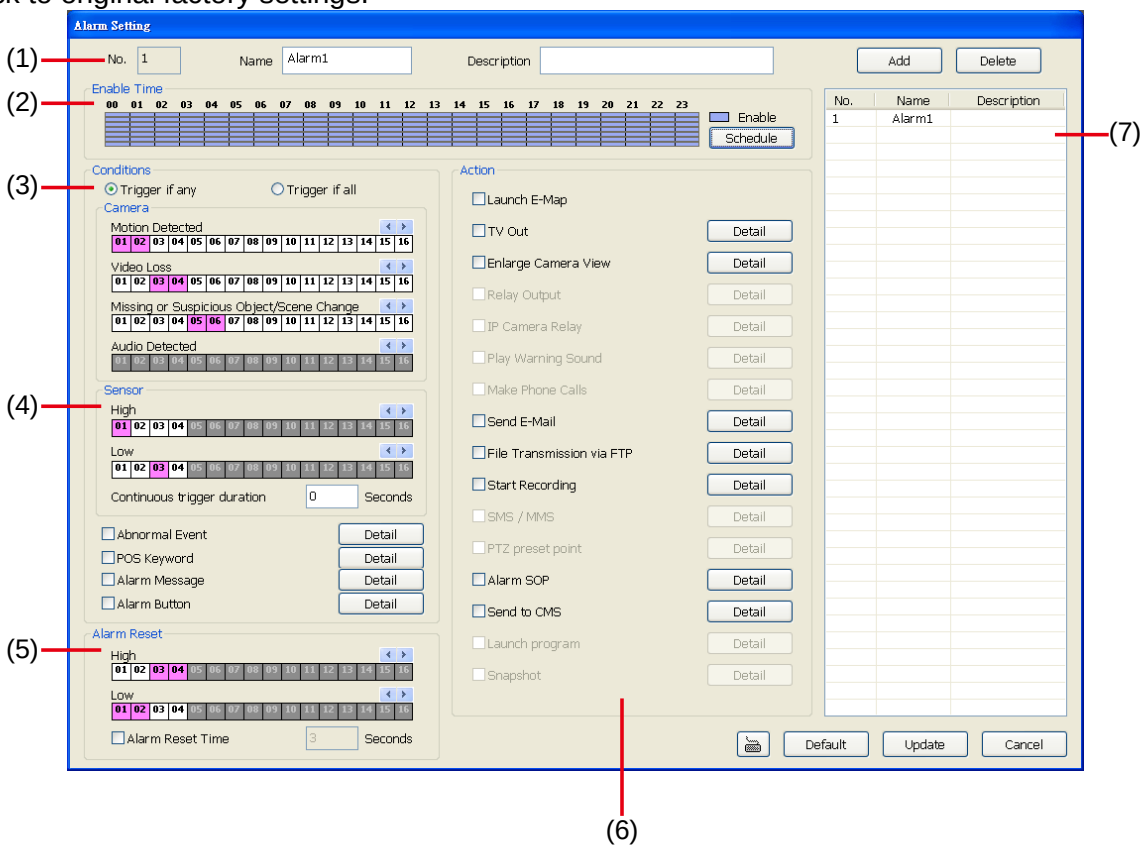
1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting (see also Chapter 4.3).
   - **Backup**
     Save another copy of all the data at the set time and specified backup path. DVR automatically updates and only backup the data that are not yet included in the archive.
     ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
     ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.
   - **Network**
     Activate DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
   - **Reboot**
     Restart the PC at the appointed time.

   ⓘ Make sure the Windows operating system is set **NOT** to require you to login user name and password. This way the system will be able to run DVR program.

   - **Disable Alarm**
     Deactivate the alarm at the set time temporarily.
   - **Turn on Relay**
     Activate the relay at the set time. Number of relays are depending on the relays has connected with DVR system.
3. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule (see also Chapter 4.5.1). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
5. To end Schedule Setting, click **Update** to exit and accept the setting and **Exit** to exit without saving the setting.

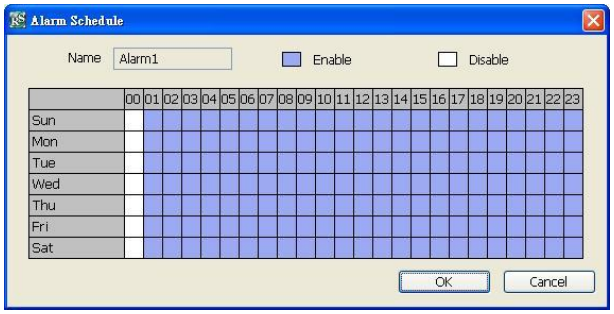
9.2.2.6 Alarm Setting

In the Alarm Setting window, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory settings.



To set the Alarm Setting:

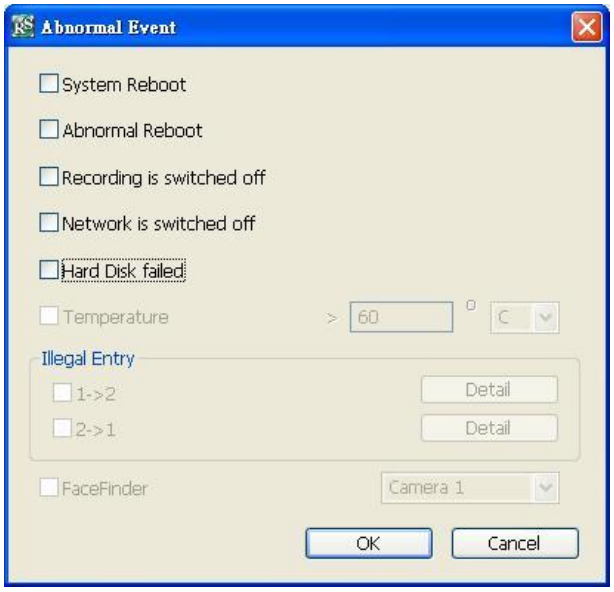
1. Click **Add** to insert and set a new alarm setting. Click the items in the **(8) Alarm Setting List**, if you want to modify the alarm setting.
2. In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.



4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
   - In Camera section, select and click on the camera number (01 to 32) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
   - In **Missing and Suspicious Object/Scene**, click the camera number (01 to 32) and select the certain object on the screen (right click on camera number for detailed setting)), and when the certain object is missing or doubtful, the system will alarm. (see also Chapter 4.9.12) In **Scene Change**, when the camera has been moved, the system will alarm, too.
   - In **Audio Detection**, click the camera number (01 to 32) to the system to alarm when detect the abnormal voice.
5. In **(4) Sensor**, select and click on the sensor number (use ◀ and ▶ to select the sensor) to set the

condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.

- **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
- **Abnormal Event:** Enable/disable to set the condition of the event for system to alarm..



  - ✓ **System Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
  - ✓ **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
  - ✓ **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
  - ✓ **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
  - ✓ **Hard Disk failed:** when the hard disk can't work normally, the system will send out the alarm message.
- **POS Keyword:** Enable/disable to scan the data from the POS if it matches the keyword (see also Chapter 4.9.11).
- **Alarm Message:** To active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
- **Alarm Button:** Enable/disable to active manual alarm function (see also Chapter 2.2#(19)). To define alarm message of manually alarm trigger. Click alarm button and select the alarm button # and fill in the description of alarm button.

6. In **(5) Alarm Reset**, click the camera number (use ◀ and ▶ to select the alarm) to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the sensor condition to low.
   - **Alarm Reset Time:** Set a time for the alarm auto reset. When an alarm happen such as motion detected and video loss, the alarm will reset at the alarm reset time.
7. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.
   - **Launch E-Map**
     Display mini Emap screen.
   - **TV Out**
     Switch to only display the video on TV from where the alarm is activated.
     - ✓ **Retrieve time:** set the waiting duration before system switching back to original display mode on TV automatically. If the retrieve time is un-mark, the alarm video will keep displaying until user switch back to normal display mode manually.

- **Enlarge Camera View**
  Switch to only display video in Preview/Advanced mode from where the alarm is activated.
  - ✓ **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually.

- **Send E-mail**
  Send an electronic text message. To setup click **Detail** (see also To Setup Send E-mail).
- **File Transmission via FTP**
  Upload file to remote computer thru FTP (File Transfer Protocol). To setup click **Detail** (see also To Setup FTP).
- **Start Recording**
  Record the video from the selected camera. To setup click **Detail** (see also To Setup Alarm Recording).
- **Alarm SOP (Standard Operation Procedure)**
  List the instructions to inform the person of what to do when the alarm is activated. To setup click **Detail** (see also To Setup Alarm SOP).
- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated (see also To Setup CMS Setting)

To Setup Send E-mail Setting

Next to the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

(1) Mail Server: Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.

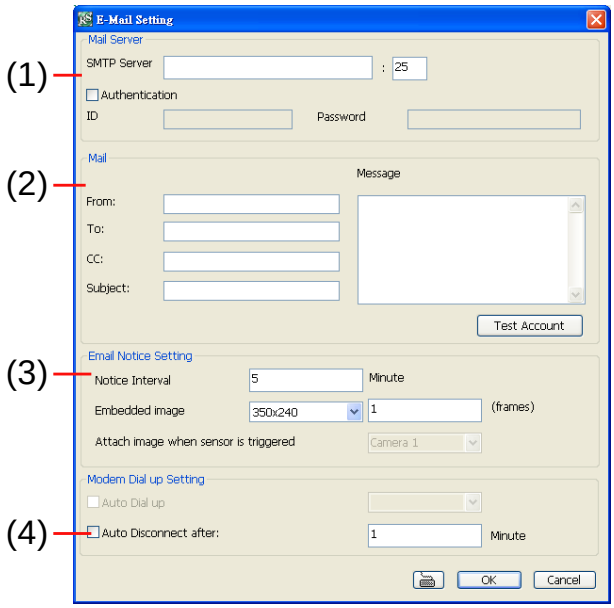
(2) Mail: To check if it is working, click **Test Account** button.

- **From:** Enter the sender e-mail address.
- **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
- **Subject:** Enter the message title.
- **Message:** Type the message.

(3) Email Notice Setting

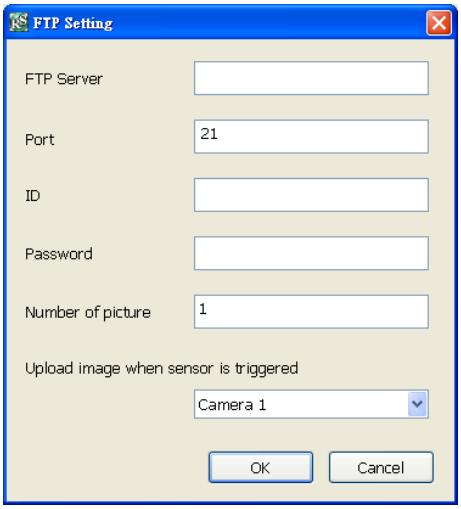
- **Notice Interval:** Set the period of time before it sends another e-mail notice.
- **Embedded image** **:** Select the image size and set the number of frames.
- **Attach image when sensor is triggered:** When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

(4) Modem Dial up Setting: User may set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.



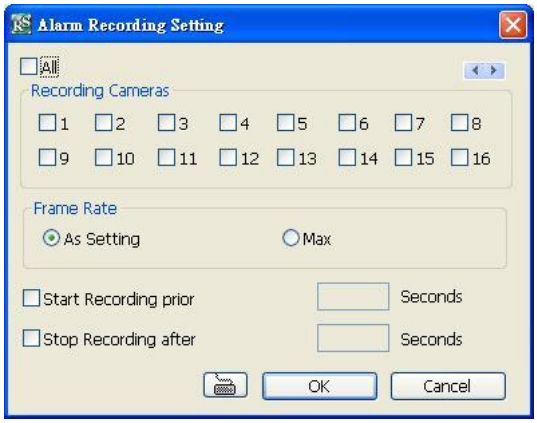
To Setup FTP Setting

1. Next to the File Transmission via FTP check box, click **Detail**.
2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
3. In **Number of Pic** text box, enter the number of sequence images that want to send when file is transmitting. The maximum number of picture can be transmitted are 16.
4. In **Upload image when sensor is triggered**, select the camera that the images will be capture and send when the sensor is triggered.
5. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



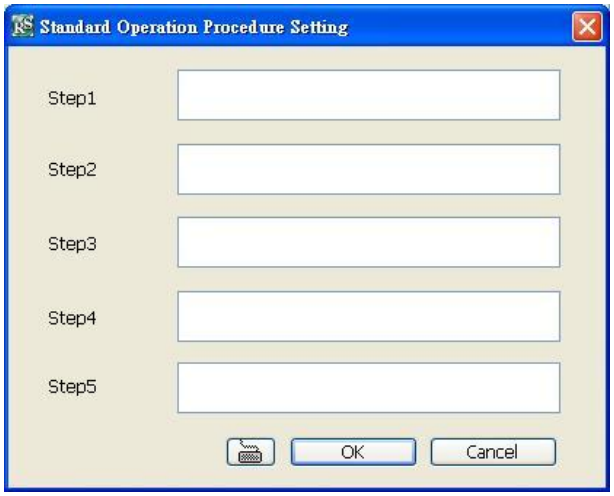
To Setup Alarm Recording Setting

1. Next to the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed.
4. In the **Stop Recording after** text box, set the number in second for the program to continue recording after the alarm has ended.
5. Click **OK** to accept the new settings and **Cancel** to exit without saving.



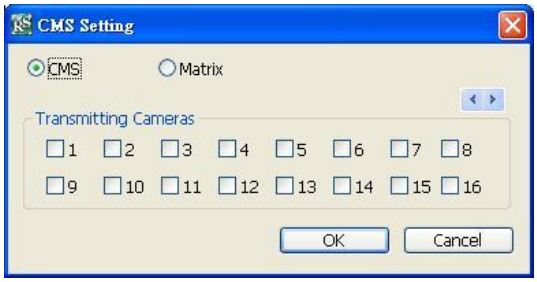
To Setup Alarm SOP

Next to the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated, the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.



To Setup CMS Setting

Next to the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.



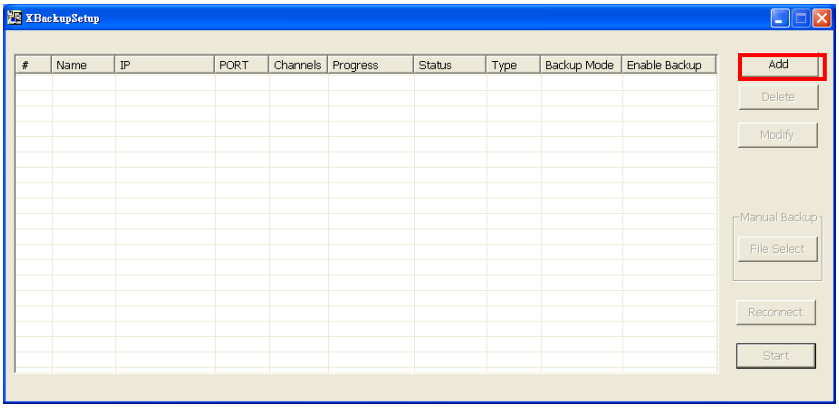
9.3 Remote Backup

Remote Backup is purely for backing up the *.dvr file from the DVR sever. You can select between Auto Backup and Manual Backup. Auto Backup continuously archives one hour of the recorded data at a time, starting from the specified date. As for Manual Backup, it only archives the recorded data of selected date.

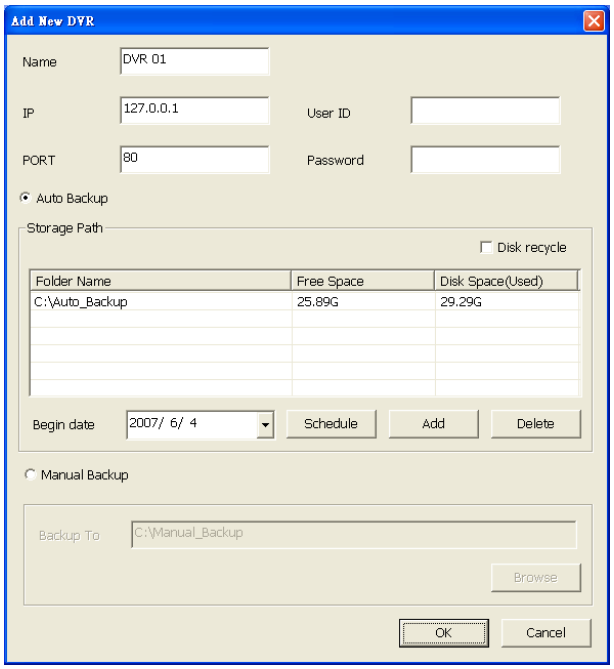
To back up the data, you must have at least 2G hard disk space.

To back up the recoded data from the DVR server:

1. Make sure you are connected to the internet.
2. Click **Start** >> **Programs** >> **DVR** >> **Web Tool** >> **Remote iBackup**
3. To add the DVR server, click **Add**



4. In the Add New DVR windows, enter the Name, IP, user ID, and password.



5. Select the Backup mode:

   Auto Backup mode: the backup will automatically execute when the setup is completed

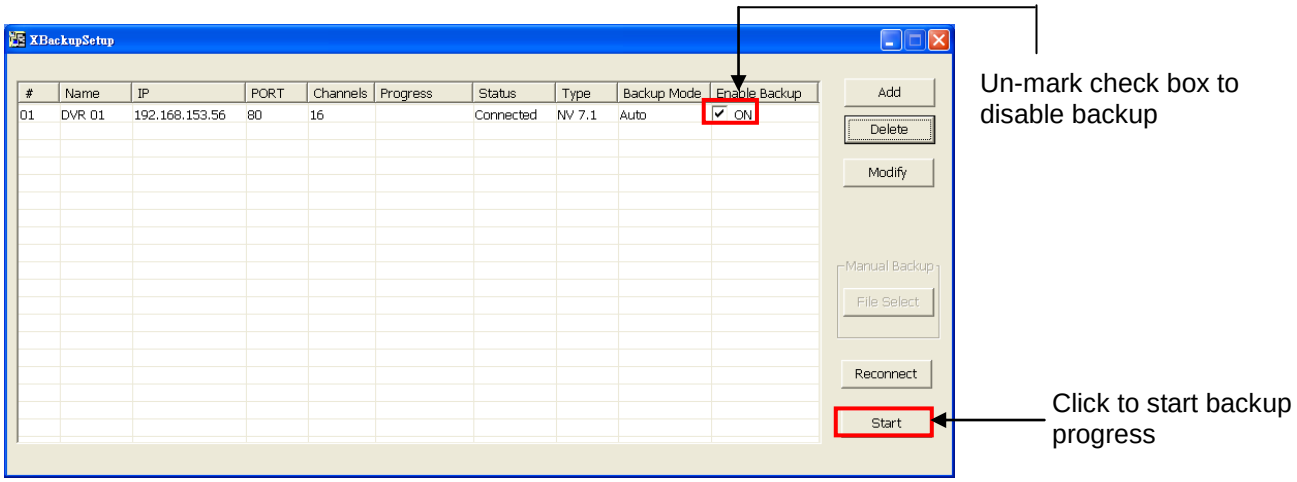
   - In Begin Date drop down calendar, select the date from where to start
   - Click **Add** to set the storage path.
   - Click **Delete** to remove the selected storage path.
   - Click **Schedule** to select/unselect the time you want to backup. The red block turns white when it is unselected.
   - Enable/disable **Disk Recycle** check box, to automatically overwrite the oldest file when there is not enough free space to backup the file.

   Manual Backup mode: the backup progress will start when user press the backup button

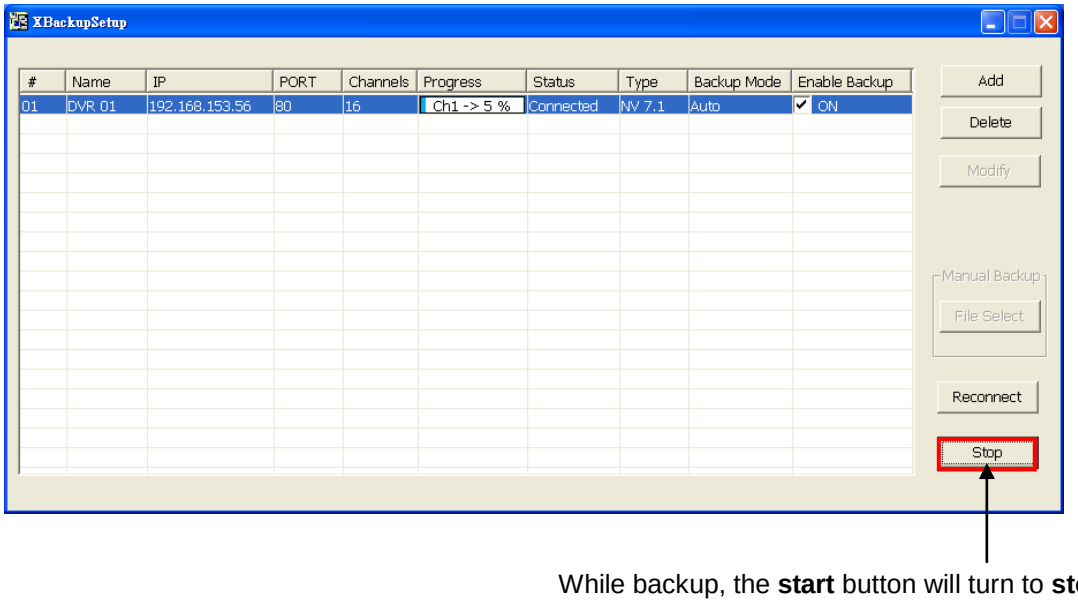
   - Click **File Select** to choose the date, time and camera you want to back up.

- Click **Browse** to set the storage path.

6. Click **OK** to complete the adding DVR server. The added DVR server will display in Remote Backup main windows.



7. Click **Start** to begin backup and click Stop to stop backup progress.


XBackupSetup
Name IP PORT Channels Progress Status Type Backup Mode Enable Backup
01 DVR 01 192.168.153.56 80 16 Ch1 -> 5 % Connected NV 7.1 Auto ON
Add
Delete
Modify
Manual Backup
File Select
Reconnect
Stop
While backup, the **start** button will turn to **stop** button

8. For manually backup, click **file select** button and select the DVR wants to backup

Chapter 10 Using the Remote Control Server

The bundled Remote Control Server enables the PC with Central Management System program (NVR-CMS) installed in it remotely access the DVR server. You many need to manually run this program for CMS access the DVR server. To run, click **Start** > **Programs** > **DSS** > **DVR** > **Remote Control Server**.

The remote control server icon appears on the taskbar when the remote control server is enabled. To change the port setting or stop server, right-click icon and then make a selection.

User can also setup Remote Control Server in DVR **Network** setting, please see Chapter 4.4 #(5).

Appendix A Network Service Port

The following table shows the ports that DVR server uses for certain network service.

	Port #	Variable
Remote Console (CM 3000)	5550	Y
WebCam	80	Y
2-way audio	9999	Y
Remote Control (NVR-CMS)	5555	Y
DVR POS	5150	Y
DVR DDNS (Upload / Download)	53 / 1053	N

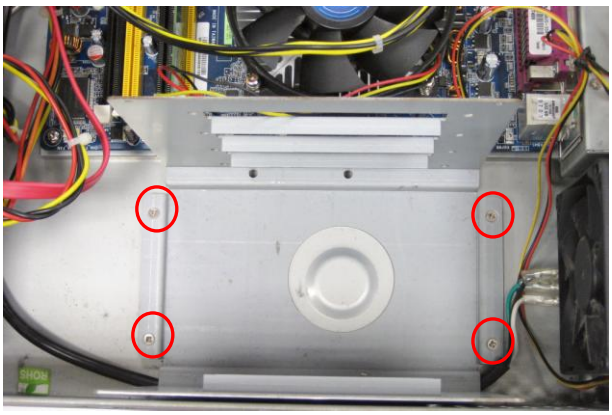
Appendix B Install Extra Hard Disk (RACK series)

Beside one hard disk can be installed in one hard disk in removable HDD drawer, user can install four more SATA hard disks inside the DVR unit.

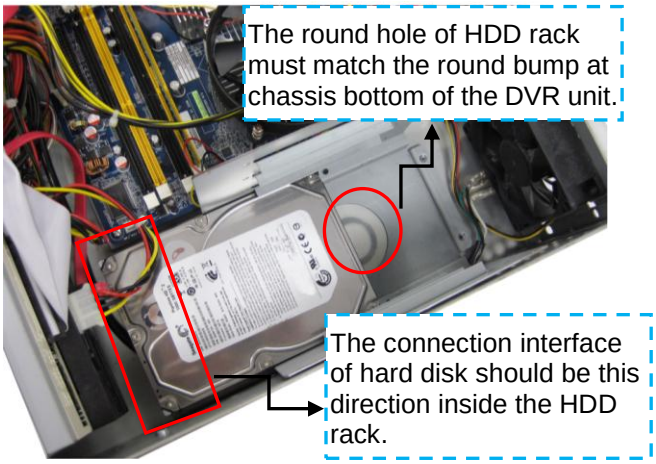
Please refer to the below steps to install the hard disk:

1. Loosen all screws (2 sides and back) and push the cover backward and lift to open the case cover.

2. Loosen all screws of HDD rack and remove the HDD rack from DVR unit.



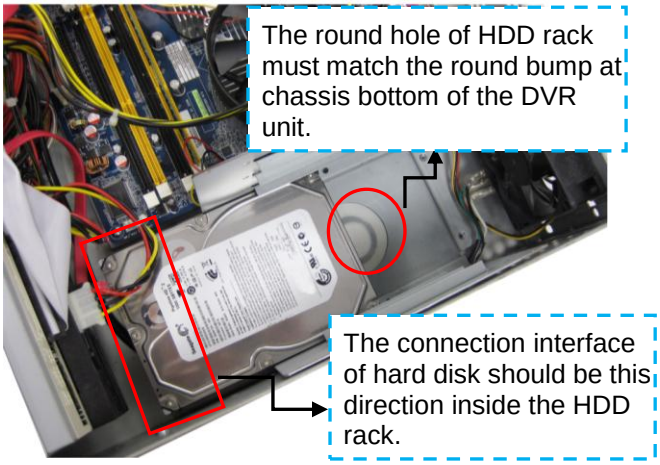
3. Place the SATA hard disk into the HDD rack. The HDD rack can hold up to 4 SATA hard disks in total. When place the hard disk inside the HDD rack, user needs to pay attention about the round hole at button of HDD rack that must match the round bump on the chassis bottom of the DVR unit. Therefore, please refer to the below figures to place the hard disk inside the HDD rack.


The round hole of HDD rack must match the round bump at chassis bottom of the DVR unit.
The connection interface of hard disk should be this direction inside the HDD rack.

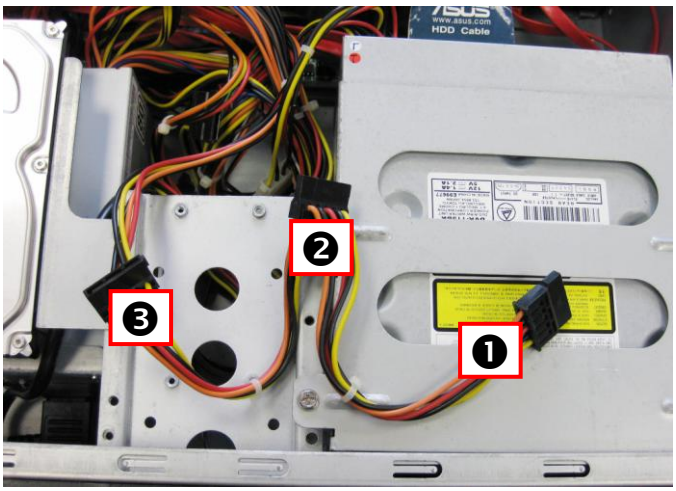
Four hard disks inside the HDD rack

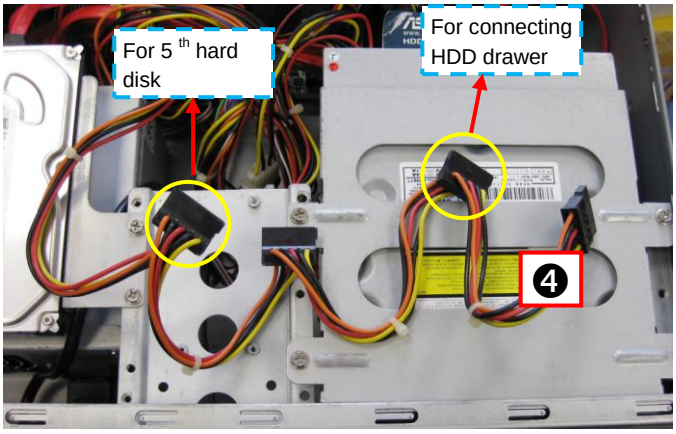
4. Secure the all hard disks on HDD rack (both side).

5. And then, put the HDD rack back into the DVR unit and screw the HDD rack.

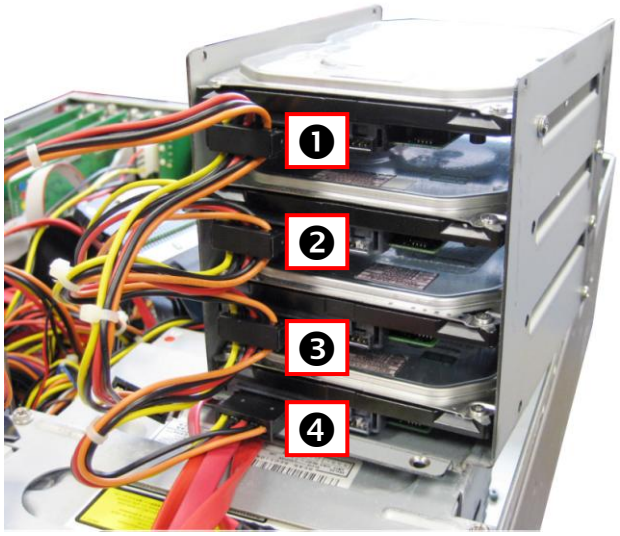

The round hole of HDD rack must match the round bump at chassis bottom of the DVR unit.
The connection interface of hard disk should be this direction inside the HDD rack.

6. Connect the power cable to hard disk. Please find a 2 power cables that one has four power connectors and another one has 3 power connectors from inside the DVR unit. Connect the power connector follow the number order in below figure shown.

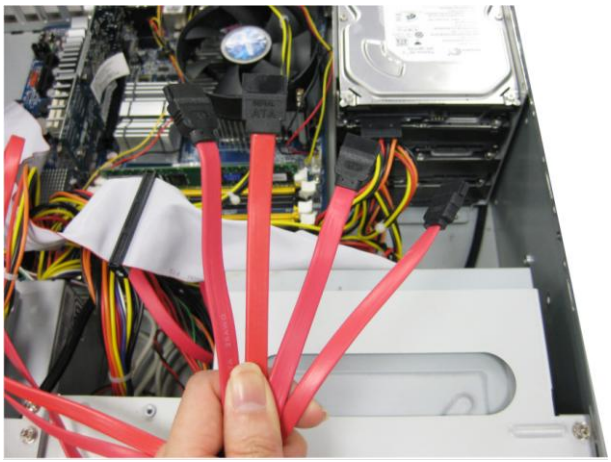




If the power connector has connected to the HDD or other device already, please remove the connection and follow the number order to connect again.



7. Connect the SATA cable to the hard disk. User should find the 4 STAT cables that are connected on the motherboard of the DVR unit.



8. Finally, push the cover backward and secure the cover.

Warranty Notice

LIMITED WARRANTY

LUXON VIDEO, Inc. warrants that this product to be free of defects resulting from faulty manufacturing or components under the following terms:

WARRANTY LENGTH

Labor is warranted for (1) one year from the date of purchase

Parts are warranted for (1) one year from the date of purchase

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser.

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed.
2. Damage, deterioration, or malfunction resulting from:
    a. Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.
    b. Misapplication of service by someone other than the manufacturer's representative.
    c. Any shipment damages. (Claims must be made with carriers.)
    d. Any other cause that does not relate to a product defect.
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with the product.
4. Luxon Video, Inc. does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose.

WHAT WE WILL NOT PAY FOR

We will pay material expenses for covered items. However, we will not pay for the following:

1. Removal or installation charges.
2. Shipping charges.
3. Any incidental charges.

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY LIMITATIONS OF IMPLIED WARRANTIES.

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. Any implied warranties are limited in duration to 15 months from the date of purchase.

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This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state.

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